

**Table 3**  
**Soil Borings Associated With Environmental Units**  
**Airport/Klondike Area, Pratt & Whitney, East Hartford, Connecticut**

	Phase I		Phase II	Phase III
	Sample Types Collected		Sample Types Collected	Sample Types Collected
	Soil Borings	Misc.	Soil Borings	Soil Borings
<b>NORTH AIRPORT</b>				
<b>Rentschler Field</b>				
Former Army Barracks Septic Systems	NA-SB-01-03			
<b>Silver Lane Pickle Company</b>				
499 Silver Lane				NA-SB-55-62
Underground Storage Tanks	NA-SB-04-18		NA-SB-19-34	
Soil Piles		NA-TP-01-03	NA-SB-36-42	NA-SB-43-49
<b>NORTH KLONDIKE</b>				
<b>X-401 Area</b>				
Fire Training Area C	NK-SB-33-35		NK-SB-81-87	
X-401 Drywells	NK-SB-30-32,36-41	NK-MW-19 (SB)	NK-SB-88-99,200	
X-401 Locker Room Septic System			NK-SB-214	
<b>X-410 Area</b>				
X-410 Drain Pipe	NK-SB-54-56		NK-SB-250-255	
Maintenance and Storage Septic System				
X-410 Oil Rack			NK-SB-256-259	NK-SB-299-303
<b>X-415 Area</b>				
X-415 Septic System and Drywell				
X-415 Boiler Room AST	NK-SB-26-29		NK-SB-65-73	
<b>M.E.R.L. Area</b>				
Fire Training Area D	NK-SB-05-07			
MERL Drywell			NK-SB-268-271	
<b>Explosives Storage Area</b>				
Fill Area		NK-TP-03		
Underground Storage Tank	NK-SB-08-11		NK-SB-201-204	NK-SB-291-292, 338-340
Explosives Storage Building	NK-SB-12-13		NK-SB-211-213	
Outside Chemical Storage Shed	NK-SB-14-15		NK-SB-205-207	
Chemical Storage Building	NK-SB-16-17		NK-SB-208-210	NK-SB-341-342
<b>Undeveloped Land Area</b>				
Soil Piles	NK-SB-51-53	NK-TP-01-02	NK-SB-215-218	NK-SB-272-290 NK-SB-310-314, 319-332
<b>X-430 Area</b>				

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**Table 3**  
**Soil Borings Associated With Environmental Units**  
**Airport/Klondike Area, Pratt & Whitney, East Hartford, Connecticut**

	Phase I		Phase II	Phase III
	Sample Types Collected		Sample Types Collected	Sample Types Collected
	Soil Borings	Misc.	Soil Borings	Soil Borings
Stainless Steel Tank	NK-SB-18-24	NK-MW-18 (SB)	NK-SB-74-80	NK-SB-305-309
Aboveground Storage Tank			NK-SB-264-267 NK-SB-315-316	
<b>X-407 Area</b>				
PCB Storage Building			NK-SB-232-240	NK-SB-333-337
<b>X-194 (X-448) Area</b>				
X-194 Area	NK-SB-57-64		NK-SB-241-249	
Aboveground Storage Tank			NK-SB-260-263	NK-SB-343-345(NOT ANALYZED) NK-SB-293-298, 304
<b>X-312/X-314 Area</b>				
X-312 Tank Farm	NK-SB-47-50		NK-SB-223-231	
X-314 Septic System	NK-SB-43-46		NK-SB-219-222	
<b>SOUTH KLONDIKE</b>				
<b>Tie-Down Area</b>				
Fire Training Area A & B-24 Test Stand	SK-SB-58-66,67-69	SK-SD-12-15	SK-SB-117-129	
USTs and AST	SK-SB-86-92		SK-SB-107-116	
<b>Firing Range Area</b>				
Firing Range	SK-SB-99-106	SK-TP-01-02		
<b>Linde/Chemical Storage Building Area</b>				
Linde Bldg, Fuel Oil UST, Load/Unload	SK-SB-38-47		SK-SB-145-157 SK-SB-214-226	
Drums and Dumpster Areas	SK-SB-48-56		SK-SB-132-137 SK-SB-227-232	
Former Underground Storage Tank	SK-SB-82-85		SK-SB-138-144 SK-SB-233-239	
Linde Septic System	SK-SB-57	SK-SL-05		
<b>Cryogenics</b>				
Cryogenics Drywell & Septic System				
Underground Storage Tank	SK-SB-78-81		SK-SB-208-213	
Aboveground Storage Tank				
Cryogenics Building			SK-SB-158-171	

**Table 3**  
**Soil Borings Associated With Environmental Units**  
**Airport/Klondike Area, Pratt & Whitney, East Hartford, Connecticut**

	Phase I		Phase II	Phase III
	Sample Types Collected		Sample Types Collected	Sample Types Collected
	Soil Borings	Misc.	Soil Borings	Soil Borings
<b>Virgin Product Storage Area</b>				
Storage Area 2	SK-SB-93-98			
Storage Area 3	SK-SB-22-37	SK-SD&SW-7-11		
Quonset Hut/Drum Storage Area	SK-SB-70-77		SK-SB-172-198 SK-SB-240-268	
<b>X-307 Area</b>				
X-307 Septic System				
X-307 Rubble Piles		SK-TP-03-05	SK-SB-199-207	
<b>Undeveloped Land Area</b>				
Debris Piles	SK-SB-130-131			
<b>SOUTH AIRPORT</b>				
<b>Fire Training Area B</b>				
Fire Training Area B	SA-SB-10-18		SA-SB-36-56,72-78	SA-SB-124-153
<b>Contractor Storage Area</b>				
Contractor Storage Area	SA-SB-19-27		SA-SB-57-71	SA-SB-119-123
<b>Former Storage Area</b>				
RCRA Waste Piles	SA-SB-163-170			
<b>Tank Trailer Storage Area</b>				
Tank Trailer Storage Area	SA-SB-28-35		SA-SB-154-162	
<b>Fill Area</b>				
Fill Area	SA-SB-79-87		SA-SB-88-118	

# **DRAFT**

**ATTACHMENT A**

**Soil Boring Logs**

# GEOLOGIC BORING LOG

<b>Project:</b> Army Barracks Area <b>LEA Comm No:</b> 68TR648 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 8/9/96 <b>End Date:</b> 8/9/96		<b>Boring ID:</b> <b>NA-SB-01</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours <b>Depth:</b> <b>At:</b> Hours			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1016749	100		9": Dark brown, fine SAND, some medium Sand, little Silt, moist, loose, root fragments; 14": Light olive brown, fine SAND, with Silt, moist, slightly stiff	0.0	
	1016750	100		As above	0.1	
4	1016751	100		Light reddish grey, fine SAND, little medium Sand, trace(-) Silt, very moist, loose; wet ≈ 5.0'	0.1	
	1016752	100		Dark olive brown, medium SAND and coarse SAND, some fine trace(+) fine Gravel, trace(-) Silt, wet, loose, dark 4" band ≈ 7.5' (as above)	0.0	
8	1016753	100		Dark yellowish brown, fine to medium SAND, some coarse trace Silt, wet, loose	0.0	
	1016754	100		Light reddish yellow, fine SAND, with medium Sand, little coarse Sand, trace Silt, wet, loose	0.0	
12	1016755	50		As above	0.0	
	1016756	50		As above	0.0	
16				Bottom of boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/23/1998

Boring No: NA-SB-01



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

<b>Project:</b> Army Barracks Area <b>LEA Comm No:</b> 68TR648 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 8/9/96 <b>End Date</b> 8/9/96	<b>Boring ID</b>  <b>NA-SB-02</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016757	100		6": Dark brown, fine SAND, with Silt, some medium Sand, slightly moist, loose, root fragments; 17": Brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
	1016758	100		19": Yellowish brown, fine SAND, trace medium Sand, trace(-) Silt, moist, loose; 4": Fine Gravel layer	0.0
4	1016759	100		4": Yellowish brown, fine SAND, trace medium Sand, trace(-) Silt, moist, loose; 19": Dark brown, fine SAND, with Silt, little medium Sand, trace coarse Sand, wet ≈ 5.0'	0.0
	1016760 1016761	100		10": Olive brown, fine to medium SAND, little Silt, wet, loose; 13": Dark red/black, fine to medium SAND, some coarse Sand, trace Silt, wet, loose	0.0
8	1016762	50		Dark yellowish red, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.0
	1016763	50		17": Yellow, medium to coarse SAND, little fine Sand, trace Silt, loose, wet; 6": Grey, medium to coarse SAND, little fine Sand, trace Silt, loose, wet	0.0
12	1016764	25		Grey, varved CLAY, trace Silt	0.0
	1016765	25		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

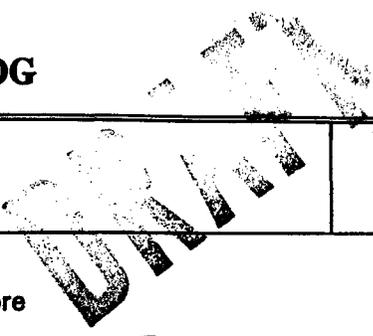
Printed On: 1/26/1998

Boring NA-SB-02



# GEOLOGIC BORING LOG

<b>Project:</b> Army Barracks Area <b>LEA Comm No:</b> 68TR648 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 8/9/96 <b>End Date</b> 8/9/96	<b>Boring ID</b>  <b>NA-SB-03</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016767	100		6": Dark brown, fine SAND, with Silt, some medium Sand, slightly moist, loose, root fragments; 17": Brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
	1016768	100		20": Yellowish brown, fine SAND, trace medium Sand, trace(-) Silt, moist, loose; 3": Gravel layer	0.0
4	1016769	100		6": As above; 17": Dark brown, fine SAND, with Silt, little medium Sand, trace coarse Sand, wet ≈ 5.0'	0.0
	1016770	100		10": Olive brown, fine to medium SAND, little Silt, wet, loose; 13": Dark reddish black, fine to medium SAND, trace Silt, wet, loose	0.0
8	1016771			Dark yellowish red, fine to medium SAND, trace coarse Sand, wet, loose	0.0
	1016772	100		17": Yellow, medium to coarse SAND, little fine Sand, trace Silt, loose, wet; 6": Grey, medium to coarse Sand, little fine SAND, wet, loose	0.0
12	1016773			Grey, varved CLAY, trace Silt, wet, stiff	0.0
	1016774			As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998  
Boring No: NA-SB-03



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/21/96 <b>End Date:</b> 10/21/96		<b>Boring ID:</b> <b>NA-SB-04</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020281	100		Dark brown, fine SAND, little Silt, trace medium Sand, moist, loose	0	
	1020282	100		Black, fine SAND, some Silt, little medium Sand, moist, loose	2.0	
4	1020283 1020284	100		12": As Above; 11": Dark grey, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	3.5	
	1020285	100		As Above, HC odor	1.0	
8	1020286	50		As Above, no odor apparent	0	
	1020287	50		As Above	0	
12	1020288	50		Grey, fine SAND, little medium Sand, trace Silt, wet, loose	0	
	1020289	50		As Above	0	
16				Bottom of Boring at 15'*		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. * Olive grey, varved, clay at 15.0'.						

Printed On: 1/22/1998

Boring NA-SB-04



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/21/96 <b>End Date</b> 10/21/96	<b>Boring ID</b>  <b>NA-SB-05</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020290	100		Brown, fine SAND, some Silt, trace medium Sand, moist, loose	0
	1020291	100		12": As Above; 1": Clay piping; 5": Black, fine SAND and SILT, moist, loose; 5": Brown, fine SAND, some Silt, trace medium Sand, wet, loose	0
4	1020292	100		2": As Above; 22": Grey, fine to medium SAND, with coarse Sand, little fine Gravel, trace Silt, wet, loose, sewage odor	0
	1020293	100		12": As Above; 12": Grey, fine SAND, little Silt, trace medium Sand, wet, loose, sewage odor	0
8	1020294	100		Grey, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.5
	1020295	100		As Above	0
12	1020296	100		As Above	0
	1020297	100		As Above	0
16				Bottom of Boring at 15'*	
20					
24					

**Comments:** Borehole backfilled with bentonite chips. \* Olive grey, varved clay, trace Silt, wet, stiff at 15.0'.

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Boring No: NA-SB-05



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/22/96 <b>End Date:</b> 10/22/96		<b>Boring ID:</b> <b>NA-SB-06</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020300	100		Brown, fine SAND and SILT, moist, slightly stiff, root fragments	20.0	
	1020301	100		8": As Above; 14": Dark brown, medium SAND, some fine Sand, little coarse Sand, very moist, loose, strong hydrocarbon odor; 1": Black lense, fine SAND, with Silt, some medium Sand, moist, loose, strong hydrocarbon odor;	840.0	
4	1020302	100		1": Dark brown, medium SAND, some fine Sand, little coarse Sand, wet, loose, strong hydrocarbon odor	1000+	
	1020303	100		Strong brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	42.0	
8	1020304	100		6": As Above; 18": Dark grey, fine SAND, with medium Sand, little Silt, trace coarse Sand, wet, loose	9.0	
	1020305	100		6": As Above; 18": Olive brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	1.3	
12	1020306	100		Greyish brown, fine to medium SAND with coarse Sand, little fine Gravel, trace(-) Silt, wet, loose	4.6	
	1020307	100		As Above	0.0	
16				Bottom of boring at 15.0' *		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. *Olive grey, CLAY, trace Silt, wet, stiff at 15.5'.						

Printed On: 1/22/1998

Boring NA-SB-06



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date</b> 10/22/96 <b>End Date</b> 10/22/96		<b>Boring ID</b>  <b>NA-SB-07</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020308	50		Dark brown, fine SAND and SILT, trace(+) medium Sand, trace(-) fine Gravel, moist, slightly stiff	0.0	
	1020309	50		8": As Above; 4": Brown, medium SAND, some fine Sand, little coarse Sand, trace(+) Silt, moist, loose	0.0	
4	1020310	75		Olive brown, fine SAND, with Silt, wet, slightly stiff	0.1	
	1020311	75		As Above	0.4	
8	1020312	75		Olive grey, fine SAND, some medium Sand, little Silt, trace(-) coarse Sand, wet, loose	0.0	
	1020313	75		Olive brown, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.1	
12	1020314	100		Grey, medium to coarse SAND, some fine Sand, trace(+) fine Gravel, trace(-) Silt, wet, very loose	0.0	
	1020315	100		As Above	0.0	
16				Bottom of Boring at 15' *		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. *Olive grey, varved Clay, trace Silt, wet, stiff at 15.0'						

Printed On: 1/22/1998

Boring No: NA-SB-07



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/22/96 <b>End Date:</b> 10/22/96		<b>Boring ID:</b> <b>NA-SB-08</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)	
0	1020316	100		Dark brown, fine SAND and SILT, moist, loose, root fragments	0.1	
4	1020317	100		Light brown, fine SAND, little Silt, moist, loose, brick fragments at 3.5'	0.0	
4	1020318	25		Olive brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	2.1	
8	1020319 1020320	25		5": As Above; 1": Black, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	1.0	
8	1020321	100		As Above	2.3	
12	1020322	100		Grey, fine to medium SAND, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0.0	
12	1020323	100		As Above	0.0	
16	1020324	100		As Above	0.0	
16				Bottom of Boring at 15'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/22/1998  
Boring NA-SB-08



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/23/96 <b>End Date</b> 10/23/96	<b>Boring ID</b> NA-SB-09
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours Depth:            At:                      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020327	100		Dark brown, fine SAND, with Silt, moist, loose, root and brick fragments	0.4
+1	1020328	100		12": As above; 6": Concrete/conglomerate layer; 5": Yellowish red, medium SAND, with fine Sand, little Silt, trace coarse Sand, moist, loose	0.8
+2	1020329 1020330	100		8": Yellowish brown, medium SAND, some fine Sand, little Silt, trace coarse Sand, wet, loose; 15": Dark brown, medium SAND, some fine Sand, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	0.3
+3	1020331	100		10": As above; 13": Dark yellowish brown, fine SAND, with medium Sand, little Silt, trace coarse Sand, wet, loose	0.4
+4	1020332	100		As above	0.1
+5	1020333	100		4": As above; 19": Dark olive grey, medium SAND and coarse SAND, some fine Sand, little fine Gravel, trace(-) Silt, wet, loose	0.6
+6	1020334	100		Dark grey, medium SAND and fine SAND, trace(+) coarse Sand, trace(-) Silt, wet, loose	0.8
+7	1020335	100		As above	1.7
+8				Bottom of boring at 15.0'	

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: NA-SB-09



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/23/96 <b>End Date:</b> 10/23/96		<b>Boring ID:</b> <b>NA-SB-10</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020336	100		Dark brown, fine SAND, with Silt, moist, loose, root fragments	0.0	
	1020337	100		12": As above; 11": Brown, fine to medium SAND, little Silt, moist, loose	0.0	
4	1020338	100		Brown, fine to medium SAND, little Silt, trace fine Gravel, wet, loose	0.0	
	1020339	100		Olive grey, fine SAND, trace Silt, wet, loose	0.0	
8	1020340	100		As above	0.0	
	1020341	100		Olive grey, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.2	
12				No Recovery		
				No Recovery		
16				Bottom of boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. No recovery from 12-15'						

Printed On: 1/22/1998

Boring NA-SB-10



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/23/96 <b>End Date:</b> 10/23/96		<b>Boring ID:</b> <b>NA-SB-11</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020344	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	0.0	
	1020345	100		20": As above; 3": Concrete layer	0.0	
4	1020346	100		Dark brown, fine SAND, some Silt, little medium Sand, moist, loose	0.0	
	1020347	100		Dark yellowish brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.2	
8	1020348	100		Grey, fine SAND, little medium Sand, trace(-) Silt, wet, loose	0.4	
	1020349	100		Grey, medium SAND, some fine Sand, little coarse Sand, trace(+) fine Gravel, trace(-) Silt, wet, loose	0.2	
12	1020350	10		Grey, medium to coarse Sand, little fine Sand, trace fine Gravel, wet, very loose	0.0	
	1020351	10		As above	0.0	
16				Bottom of boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/22/1998

Boring No: NA-SB-11



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date</b> 10/24/96 <b>End Date</b> 10/24/96	<b>Boring ID</b>  <b>NA-SB-12</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /ft	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020354	100		20": Brown, fine to medium SAND, some Silt, moist, loose, root fragments, rubble; 3": Dark yellowish brown, fine to medium SAND, little coarse Sand, trace silt, moist, loose	0.0
	1020355	100		As above	0.0
4	1020356 1020357	100		Greyish brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, wet, loose	3.9
	1020358	100		As above	0.1
8	1020359	100		Dark greenish grey, fine SAND, some Silt, little medium Sand, wet, loose	0.1
	1020360	100		12": Grey fine SAND, some Silt, trace medium Sand, wet, loose; 11": Grey, medium SAND, with coarse Sand, some fine Sand, trace Silt, wet, very loose	0.2
12	1020361	20		1": As above; 4": Olive grey, varved CLAY, little Silt, wet, stiff	0.0
	1020362	20		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998  
Boring NA-SB-12



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/24/96 <b>End Date</b> 10/24/96	<b>Boring ID</b> <b>NA-SB-13</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020363	100		Strong brown, fine SAND, some Silt, trace medium Sand, moist, loose, root fragments	0.0
	1020364	100		6": As above; 17": Dark brown, fine SAND and SILT, trace medium Sand, moist, loose	0.0
4	1020365	100		Brown, fine to medium SAND, little coarse Sand, trace(+) Silt, wet, loose	0.1
	1020366	100		Olive brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, wet, loose	0.1
8	1020367	100		10": As above; 13": Olive brown, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.0
	1020368	100		Olive brown, fine SAND, with medium Sand, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0.0
12	1020369	25		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1020370	25		4": As above; 2": Grey, fine SAND and SILT, wet, loose	0.3
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: NA-SB-13



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/24/96 <b>End Date:</b> 10/24/96		<b>Boring ID:</b> <b>NA-SB-14</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020371	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	0.0	
	1020372	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose	0.0	
4	1020373	100		Strong brown, fine SAND and SILT, little medium Sand, wet at ≈ 6.0', loose	0.4	
	1020374	100		Strong brown, fine to medium SAND, some Silt, little coarse Sand, wet, loose	0.1	
8	1020375	100		Grey, fine SAND, with medium Sand, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0.1	
	1020376	100		As above	0.0	
12	1020377	10		1": Grey, fine SAND and SILT, wet, loose; 1.5": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0	
	1020378	10		1.5": As above; 1": Grey, fine SAND and SILT, wet, loose	0.0	
16				Bottom of boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/22/1998  
Boring NA-SB-14



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/28/96 <b>End Date:</b> 10/28/96		<b>Boring ID:</b> <b>NA-SB-15</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1020381	100		Dark brown, fine SAND with Silt, little medium Sand, moist, slightly stiff, root fragments	0.0	
	1020382	100		2": As Above; 21": Strong brown, fine SAND, some medium Sand, little Silt, moist, loose	0.2	
4	1020383	100		4": As Above; 8": Brown, fine SAND and SILT, trace medium Sand, wet, slightly stiff; 11": Dark reddish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.4	
	1020384	100		As Above	0.0	
8	1020385 1020386	50		Brown, fine to medium SAND, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0.7	
	1020387	50		As Above	0.3	
12	1020388	100		15": Grey, fine SAND, little medium Sand, trace(+) Silt, wet, loose; 8": Olive grey, varved CLAY, trace Silt, wet, stiff	0.3	
	1020389	100		As Above	0.0	
16				Bottom of Boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/22/1998

Boring No: NA-SB-15



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# GEOLOGIC BORING LOG

DRAFT

**Project:** Silver Lane Pickle Co.  
**LEA Comm No:** 68TR617  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
10/28/96  
**End Date**  
10/28/96

**Boring ID**  
**NA-SB-16**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM      **At:**      **Hours**        
**Depth:**      **At:**      **Hours**

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020390	100		10": Dark brown, fine SAND, with Silt, trace medium Sand, moist, slightly stiff, root fragments; 13": Strong brown, fine SAND, some Silt, little medium Sand, moist, loose	0.0
	1020391	100		As Above	0.0
4	1020392	100		18": Dark reddish brown, fine to medium SAND, some coarse Sand, little fine Gravel, trace(-) Silt, wet, loose; 5": Brown, fine to medium SAND, little Silt, wet, loose	0.4
	1020393	100		As Above	1.5
8	1020394	100		As Above	1.6
	1020395	100		19": As Above; 4": Grey, fine to medium SAND, little Silt, wet, loose	0.3
12	1020396	100		5": As Above; 18": Olive grey, varved CLAY, trace Silt, wet, stiff	1.3
	1020397	100		As Above	22.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No. NA-SB-16

# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/28/96 <b>End Date</b> 10/28/96	<b>Boring ID</b> NA-SB-17
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020398	100		4": Dark brown, fine SAND and SILT, moist, slightly stiff, root fragments; 1": Concrete; 18": Dark reddish brown, fine to medium SAND, little Silt, moist, loose	0.0
	1020399	100		Strong brown, fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, wet, loose	0.0
-4	1020400	100		12": As Above; 11": Strong brown, fine SAND, some Silt, little medium Sand, wet, loose	0.2
	1020401	100		Brown, fine SAND, with medium Sand, little Silt, trace coarse Sand, wet, loose	0.1
-8	1020402	100		Grey, fine SAND, little medium Sand, trace Silt, wet, loose	0.0
	1020403	100		Grey, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.0
-12	1020404	50		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1020405	50		As Above	0.0
-16				Bottom of Boring at 15.0'	
-20					
-24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: NA-SB-17



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. <b>LEA Comm No:</b> 68TR617 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/29/96 <b>End Date</b> 10/29/96	<b>Boring ID</b>  <b>NA-SB-18</b>
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DRAFT

<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020406	100		Dark red, fine SAND and SILT, little medium Sand, moist, loose, root fragments	0.0
	1020407	100		Dark red, fine SAND, some medium Sand, little Silt, trace coarse Sand, moist, loose	0.1
4	1020408 1020409	100		Reddish brown, fine to medium SAND, little Silt, wet, loose	0.7
	1020410	100		Strong brown, fine SAND, with medium Sand, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	0.1
8	1020411	50		Strong brown, fine SAND, little Silt, wet, loose	0.0
	1020412	50		Strong brown, medium SAND, with fine Sand, some coarse Sand, little fine Gravel, trace Silt, wet, loose	0.0
12	1020413	25		12": As Above; 11": Olive brown, fine SAND, some medium Sand, little coarse Sand, trace Silt, wet, loose	0.0
	1020414	25		As Above	0.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed on: 1/22/1998

Boring NA-SB-18



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# GEOLOGIC BORING LOG

**Project:** Silver Lane Pickle Add. In.  
**LEA Comm No:** 68V7039  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date:** 2/11/97  
**End Date:** 2/11/97

**Boring ID:** NA-SB-19

DRAFT

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**

**Logged By:** J. Klapheke  
**Drilling Foreman:** D. Brisson  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

**Depth:** NM      **At:**      **Hours**   
**Depth:**      **At:**      **Hours**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026253	83		10": Topsoil, dark brown, rooted; 12": Dark brown, fine(+) to coarse SAND, trace(-) fine Gravel, some Silt, loose, occasional coal and brick fragments; 8": Dark brown, SILT and fine SAND, moist, slightly dense; 10": Dark yellow brown, fine to medium SAND, little Silt, moist, loose, occasional brick fragments	0.1
	1026254				0.1
4	1026255	75		Grey brown, fine to coarse SAND, little fine Gravel, moist to wet, slightly dense, subangular Gravel, occasional coarse Sand, fine Gravel lenses, very slight petrol odor	0.2
	1026256				0.3
8	1026257	58		Grey brown, fine to coarse (+) SAND, little fine Gravel, wet, slightly dense, angular to subrounded gravel, slight coarsening downward, slight petrol odor	0.4
	1026258				0.4
12		0		No Recovery	
16				Bottom of borings at 15'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On: 1/21/1998  
 Boring No: NA-SB-19



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 2/11/97 <b>End Date:</b> 2/11/97		<b>Boring ID:</b> <b>NA-SB-20</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026259	100		10": Dark brown topsoil; 4": Dark yellowish brown, fine(+) to medium SAND, with Silt, trace coarse Sand, trace fine Gravel, slightly moist, loose to slightly dense; 12": Dark brown, SILT and fine SAND, slightly moist, slightly dense; 12": Dark brown, SILT and SAND, slightly moist, slightly dense; 12": Dark yellowish brown, fine(+) to coarse SAND, trace(-) fine Gravel, some Silt, moist, slightly dense	0.8	
	1026260 1026261				0.5	
4	1026262	67		Grey brown, fine to very coarse SAND, trace fine Gravel, trace Silt, wet, slightly dense, strong petrol odor near tip, slight staining	0.5	
	1026263				1.5	
8	1026264	46		Grey brown, fine to very coarse(+) SAND, with fine Gravel, wet, loose, slight petrol odor, subrounded Gravel	1.0	
	1026265				1.0	
12	1026266	54		23": Grey brown to dark yellow brown, medium to very coarse(+) SAND, with fine Gravel, wet, slightly dense, subangular to subrounded Gravel; 3": Grey brown, fine SAND, wet, slightly dense, trace medium to coarse Sand	1.0	
	1026267				0.9	
16	Bottom of boring at 16'					
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

Printed On: 1/21/1998

Boring NA-SB-20



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 2/11/97 <b>End Date</b> 2/11/97	<b>Boring ID</b>  <b>NA-SB-21</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026268	83		10": Dark brown, Topsoil; 14": Dark yellowish brown, fine(+) to medium SAND and SILT, trace fine Gravel, slightly moist, slightly dense, coal fragments; 16": Dark brown, fine(+) to medium SAND, with Silt, trace fine to medium Gravel, moist, loose to slightly dense, concrete fragments	0.3
	1026269				0.4
4	1026270	88		12": Dark yellow brown, fine to coarse SAND, with Silt, wet, slightly dense, 1" Silt lense at top; 28": Grey brown, fine to very coarse SAND, trace Silt, trace fine Gravel, wet, loose, petrol odor and staining at base; 2": Grey brown, fine GRAVEL, some coarse Sand, wet, loose, petrol odor, subangular	0.7
	1026271				1.2
8		0		No recovery	
12	1026272	100		40": Grey brown, medium to very coarse(+) SAND, with fine Gravel, wet, slightly dense to loose, angular to subrounded; 8": Olive grey, CLAY and SILT, trace(-) very fine Sand, moist, dense, laminated	0.3
	1026273				0.2
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On: 1/21/1998

Boring No: NA-SB-21



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 2/12/97 <b>End Date:</b> 2/12/97		<b>Boring ID:</b> <b>NA-SB-22</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026275	67		8": Dark brown, Topsoil-frozen, rooted; 24": Dark yellowish brown, fine to coarse SAND, some fine Gravel, little Silt, moist to wet, occasional brick fragments, occasional charcoal fragment	1.0	
	1026276				22	
4	1026277	75		12": As above, wet; 4": Black, SILT, moist to wet, slightly dense, strong petroleum odor; 20": Grey, fine to coarse(+) SAND, with fine Gravel, wet, slightly dense to loose, very strong petrol odor, slightly coarser at tip	>1000	
	1026278 1026279				120	
8	1026280	69		Grey, fine to coarse(+) SAND, with fine Gravel, wet, loose to slightly dense, strong petrol odor, coarsening downward to grey, fine GRAVEL, with coarse Sand, wet, loose, strong petrol odor, subrounded to subangular	22	
	1026281				10	
12	1026282	48		Grey brown, fine to coarse(+) SAND, with fine Gravel, loose to slightly dense, wet, very slight petrol odor	0.1	
	1026283				0.1	
16				Bottom of boring at 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

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Printed On: 1/21/1998  
Boring NA-SB-22



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 2/12/97 <b>End Date:</b> 2/12/97		<b>Boring ID:</b> <b>NA-SB-23</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$			<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026284	54		10": Dark brown, Topsoil-frozen, rooted; 16": Dark yellowish brown, fine to coarse SAND, trace fine Gravel, slightly moist to moist, loose	0.2	
	1026285				0.2	
4	1026286	83		2": As above; 14": Black, SILT, little fine Sand, dense, moist, occasional fibrous organic matter; 24": Grey, fine to coarse SAND, little fine Gravel, wet, loose to slightly dense, petroleum odor, occasional fibrous organic matter, occasional brick fragments	0.1	
	1026287				1.5	
8	1026288	71		Grey, fine to coarse(+) SAND, with fine Gravel, wet, loose, petroleum odor, slight coarsening downward	1.0	
	1026289				0.3	
12	1026290	75		30": Grey, fine to coarse SAND, little fine Gravel, wet, slightly dense, fining downward; 3": Grey, CLAY, with Silt, trace fine Sand, moist to wet, dense, laminated; 3": Grey, fine SAND, wet, slightly dense	0.2	
	1026291				0.1	
16				Bottom of boring at 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

Printed On: 1/21/1998

Boring No: NA-SB-23



LOUREIRO ENGINEERING ASSOCIATES, PC

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# GEOLOGIC BORING LOG

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<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 2/12/97 <b>End Date</b> 2/12/97	<b>Boring ID</b> NA-SB-24
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026292	88		8": Topsoil, rooted, frozen, dark brown; 8": Dark brown, fine SAND, trace fine Gravel, some Silt, 1" coal/charcoal lense, slightly moist, slightly dense; 10": Dark yellow brown, fine to medium SAND, with Silt, slightly moist, slightly dense; 16": Dark brown, fine(+) to medium SAND, with Silt, moist, slightly dense, trace fine Gravel	0.0
	1026293				0.5
4	1026294	75		28": Yellow brown to strong brown, fine to coarse(+) SAND, little fine Gravel, wet, loose, coarsening down; 8": Grey, brown, fine to coarse SAND, with fine Gravel, wet, loose, 1" fine SAND lens at base	0.1
	1026295				0.3
8	1026296	71		Grey brown, fine to coarse(+) SAND, little fine Gravel, wet, loose, coarsening downward	0.1
	1026297				0.1
12	1026298	100		46": Grey brown, fine to coarse(+) SAND and fine GRAVEL, wet, loose, subangular to subrounded Gravel; 2": Grey, CLAY, with Silt, trace fine Sand, moist to wet, dense, laminated	0.0
	1026299				0.1
16				Bottom of boring at 16'	
20					
24					

Printed On: 1/22/1998  
Boring NA-SB-24

**Comments:** Borehole backfilled with bentonite upon completion.

# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 2/12/97 <b>End Date</b> 2/12/97	<b>Boring ID</b>  <b>NA-SB-25</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours <b>Depth:</b> <b>At:</b> Hours	<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026300	100		12": Topsoil-frozen, rooted; 20": Dark brown, fine to medium SAND, trace fine Gravel, moist, loose, coal/charcoal fragments near top; 8": Black, SILT, moist, dense; 8": Strong brown, medium to coarse SAND, moist, loose	
	1026301				
4	1026302	81		4": As above; 10": Black, SILT, wet, dense, strong petrol odor; 25": Grey, fine to coarse(+) SAND, with fine Gravel, wet, loose, petroleum odor	
	1026303				
8	1026304	81		Grey, fine to coarse(+) SAND, little fine Gravel, trace(-) Silt, wet, loose, subrounded Gravel, occasional Gravel lense (fine Gravel)	
	1026305				
12	1026306	83		32": As above; 8": Grey, CLAY, some Silt, trace(-) fine Sand, wet, dense, laminated	
	1026307				
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On: 1/21/1998

Boring No: NA-SB-25



# GEOLOGIC BORING LOG

**Project:** Silver Lane Pickle Add. In.      **Start Date:** 2/13/97      **Boring ID:**  
**LEA Comm No:** 68V7039      **End Date:** 2/13/97      **NA-SB-26**  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

DRAFT

**Drilling Contractor:** LEA      **Logged By:** J. Klapheke  
**Drilling Method:** Geoprobe      **Drilling Foreman:** D. Brisson  
**Sampling Method:** Macro Core      **Drill Rig:** Geoprobe 5400  
**Groundwater Observations:**  
**Depth:** NM      **At:**      **Hours**   
**Depth:**      **At:**      **Hours**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026309	67		10": Topsoil; 14": Dark brown, fine SAND and SILT, with fine to coarse Gravel, moist, loose, subangular Gravel; Refusal @ 3' - moved 2' west	
	1026310				
4	1026311	83		6": Strong brown, fine to coarse SAND, wet, loose, trace(-) fine Gravel, trace Silt; 34": Grey, fine to coarse SAND, trace fine Gravel, wet, loose, coarsening downward, occasional fine SAND lenses	
	1026312 1026313				
8	1026314	58			Grey, medium to coarse(+) SAND and fine GRAVEL, wet, loose, subrounded Gravel, slightly coarser at tip
	1026315				
12	1026316	38		Grey, coarse SAND and fine GRAVEL, wet, loose	
	1026317				
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On 1/21/1998

Boring NA-SB-26



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 2/13/97 <b>End Date</b> 2/13/97	<b>Boring ID</b>  <b>NA-SB-27</b>
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DRAFT

<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026318	89		10" Topsoil, dark brown, with occasional brick and charcoal fragments; 14": Dark brown to dark yellow brown, fine SAND and SILT, with fine to coarse Gravel, moist, slightly dense, occasional brick and concrete fragments, concrete wedged in tip	
4	1026319  1026320	71		12": Yellow brown, fine SAND, trace Silt, wet, slightly dense, coarsening to coarse Sand, trace fine Gravel, wet, slightly dense; 20": Grey, fine to coarse SAND, wet, slightly dense; 2": Grey, fine SAND, wet, slightly dense	
8	1026321  1026322	75		Grey, medium to coarse(+) SAND and fine GRAVEL, wet, loose, subrounded	
12	1026323  1026324	100		14": As above; 30": Grey, fine to coarse SAND, little fine Gravel, wet, slightly dense; 4": Grey, CLAY, trace Silt, trace fine Sand, wet, dense	
16				Bottom of boring at 16'	
20					
24					

Printed On: 1/21/1998

Boring No: NA-SB-27

**Comments:** Borehole backfilled with bentonite upon completion.



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 2/13/97 <b>End Date:</b> 2/13/97		<b>Boring ID:</b> <b>NA-SB-28</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours <b>Depth:</b> <b>At:</b> Hours			<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026325	79		10": Top soil, dark brown, rooted, frozen; 2": Black, fine to coarse SAND, with fine Gravel, moist, loose, coal fragments and charcoal(?); 26": Strong brown to dark yellowish brown, fine to medium SAND, with Silt, slightly moist to moist, loose, coarse Gravel lense (arkose) near top		
	1026326					
4		0		No Recovery		
8	1026327	62		Grey, fine to very coarse SAND, with fine Gravel, wet, slightly dense, stratified		
	1026328					
12	1026329	38		Grey, coarse to very coarse SAND and fine GRAVEL, wet, loose to slightly dense		
	1026330					
16				Bottom of boring at 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

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Printed On: 1/21/1998

Boring NA-SB-28



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 2/18/97 <b>End Date</b> 2/18/97	<b>Boring ID</b>  <b>NA-SB-29</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours Depth:            At:                      Hours	<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026332  1026333 1026334	85		12": Dark brown, Topsoil, frozen to 6" ±, rooted; 12": Dark brown, fine SAND, with Silt, trace medium to coarse SAND, trace fine Gravel, slightly moist, loose, coal and charcoal fragments; 10": Dark reddish brown, fine(+) to medium SAND, with Silt, trace coarse Sand, slightly moist, loose; 7": Dark yellow brown, fine to coarse SAND, little fine Gravel, slightly moist, loose	
4	1026335  1026336	88		4": Dark reddish brown, SILT and fine SAND, moist, slightly dense; 34": Dark yellow brown to dark grey brown, fine to coarse(+) SAND, trace Silt, trace fine Gravel, wet, loose; 4": Grey, fine SAND, some Silt, wet, loose	
8	1026337  1026338	67		As above	
12	1026339  1026340	92		42": Dark grey brown, fine to coarse(+) SAND, with fine Gravel, wet, loose to slightly dense, fining downward; 2": Grey, CLAY, trace(-) fine SAND	
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On: 1/21/1998

Boring No: NA-SB-29



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date</b> 2/18/97 <b>End Date</b> 2/18/97		<b>Boring ID</b> NA-SB-30	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026341	67		14": Dark brown, topsoil, rooted, partially frozen, moist; 3": Dark brown, fine SAND and SILT, slightly moist, loose; 3": Grey, coarse GRAVEL, angular, dry, fractured by drilling; 12": Dark brown to dark yellowish brown, coarse GRAVEL and fine SAND, little Silt, moist, loose, angular, brick fragments		
	1026342					
4	1026343	71		Dark reddish brown to dark yellowish brown (bottom 1/3), fine to coarse(+) SAND, trace fine Gravel, wet, slightly dense, occasional staining (petroleum?), possible mild septic odor		
	1026344					
8	1026345	79		Dark yellowish brown, fine to coarse SAND, trace fine Gravel, wet, loose, occasional staining, possibly septic in bottom 1/2, occasion coarse Sand, fine Gravel lenses throughout		
	1026346					
12	1026347	100		43": Grey brown, fine to coarse(+) SAND, some fine Gravel, wet, loose to slightly dense; 4": Grey brown, fine to medium SAND, little fine Sand, trace fine Gravel, wet, slightly dense; 1": Grey, CLAY, trace Silt, trace fine Sand, wet, dense, laminated		
	1026348					
16				Bottom of boring at 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

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Printed On: 1/21/1998 Boring NA-SB-30



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 2/18/97 <b>End Date:</b> 2/18/97		<b>Boring ID:</b> <b>NA-SB-31</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> J. Klapheke <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026349	88		14": Topsoil; 3": Concrete rubble; 27": Dark yellowish brown, fine to medium SAND, some Silt, slightly moist to moist, slightly dense, generally coarsening downward		
	1026350					
4		0		No Recovery		
8	1026351	65		27": Dark grey brown, fine to coarse SAND, trace fine Gravel, wet, slightly dense; 4": Dark yellowish brown, fine to coarse(+) SAND, little fine Gravel, wet, slightly dense		
	1026352					
12	1026353	100		Dark grey brown, fine to coarse(+) SAND, with fine Gravel, wet, slightly dense		
	1026354					
16				Bottom of boring at 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

Printed On: 1/21/1998

Boring No: NA-SB-31



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/16/96 <b>End Date:</b> 7/16/96	<b>Boring ID</b> <b>NK-SB-32</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016034	100		10": Medium reddish brown, fine SAND and SILT, trace medium Sand, trace(-) coarse Sand, moist, slightly dense; 13": Light grey, fine SAND, trace(+) medium Sand, trace(-) Silt, loose, moist	60.0
	1016035	100		As above; solvent odor	500.0
4	1016036	100		Olive grey, fine to medium SAND, some coarse Sand, little fine Sand, trace fine Gravel, wet, loose	280.0
	1016037	100		8": As above; 15": Dark reddish brown, fine SAND and SILT, little medium Sand, trace(-) coarse Sand, loose, wet	18.0
8	1016038	100		5": As above; 10": Dark grey, fine SAND, little medium Sand, trace Silt, loose, wet; 8": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, stiff, wet	10.0
	1016039	100		As above	5.1
12	1016040	100		As above	4.7
	1016041	100		As above	4.6
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 2/10/1998  
Boring NK-SB-32

# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 2/19/97 <b>End Date:</b> 2/19/97		<b>Boring ID:</b> <b>NA-SB-33</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> Jon Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026366	83		20": Brown, fine SAND, trace(+) very fine Sand, trace organics, moist, moderately dense	0	
	1026367	83		20": Orange brown, fine SAND, trace(+) medium Sand, moist, loose	0	
4	1026368	75		Top 10": Grey brown, fine SAND, trace(+) medium Sand, moist, loose; Bottom 8": Orange, brown, medium to fine Sand, wet, loose	0	
	1026369	75		As above, bottom 8"	0	
8	1026370	83		Top 20": Grey, fine SAND, wet, loose	0	
	1026371	83		Top 16": As above; Bottom 4": Grey, fine SAND, trace(+) medium Sand, wet, loose	0	
12	1026372	90		Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	0	
	1026373	90		As above	0	
16				Bottom of boring at 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite upon completion.						

Printed On: 1/21/1998

Boring No: NA-SB-33



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 2/19/97 <b>End Date:</b> 2/19/97	<b>Boring ID</b> <b>NA-SB-34</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> Jon Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026374	83		Top 4": Brown, fine to very fine SAND, trace(-) medium Sand, moist, moderately dense; Middle 6": Orange brown, fine SAND, trace medium Sand, moist, loose; Bottom 10": Grey brown, fine SAND, trace(+) very fine Sand, trace organics, moist, moderately dense	0
	1026375	83		Top 15": As above, bottom 10"; Bottom 5": Brown, medium to fine SAND, trace coarse Sand, (fill material) claypipe and asphalt	0
4	1026376	83		20": Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	0
	1026377	83		Top 6": As above; Middle 8": Dark grey, medium to fine SAND, wet, organic odor, loose; Bottom 6": Grey, fine to medium SAND, wet, loose	0
8	1026378	62		Top 10": Grey, fine SAND, wet, loose; Bottom 5": Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	0
	1026379	62		Grey, medium to fine SAND, grading to grey, coarse to fine SAND, wet, loose	0
12	1026380	75		Grey, fine to medium SAND, trace coarse Sand, wet, loose	0
	1026381	75		Top 12": As above; Bottom 6": Grey, CLAY, trace Silt and fine Sand, wet, loose	0
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On: 1/21/1998

Boring NA-SB-34



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add. In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 02/24/97 <b>End Date</b> 02/24/97	<b>Boring ID</b>  <b>NA-SB-36</b>
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DRAFT

<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> Depth: NRM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026881	62		15": Orange brown, fine SAND, trace organics, moist, loose	0
	1026882	62		Top 10": Brown, fine SAND, trace very fine Sand, moist, moderately dense; Bottom 5": Brown, fine to very fine SAND, trace fill material (asphalt, topsoil, concrete), moist, loose	0
4	1026884 1026883	62 62		Top 6": As Above 5"; Bottom 12": Orange brown, fine SAND, moist, loose	0
	1026885	62		Top 10": Grey brown, fine SAND, moist to wet, loose; Bottom 8": Grey brown, fine to medium SAND, wet, loose	0
8	1026886	83		20": As Above	0
	1026887	83		Top 10": As Above; Bottom 10": Grey, fine SAND, wet, loose	0
12	1026888	62		Top 10": As Above bottom 10"; Bottom 5": Grey, medium to fine SAND, wet, loose	0
	1026889	62		15": As Above bottom 5"	0
16				Bottom of boring 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion

Printed On: 2/9/1998

Boring No: NA-SB-36



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add.In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 02/24/97 <b>End Date:</b> 02/24/97		<b>Boring ID:</b> <b>NA-SB-37</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> <b>Depth:</b> NRM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026890	62		Top 4": Orange brown, fine SAND, trace organics, moist, loose; Bottom 11": Brown, fine to very fine SAND, trace medium to coarse Sand, trace fill material (asphalt, topsoil), dense	0	
	1026891	62		15": As Above Bottom 11"	0	
4	1026892	62		Top 8": Red brown, fine SAND, trace medium Sand, moist, loose; Bottom 7": Red brown, fine SAND, trace medium Sand, wet, loose	0	
	1026893	62		15": Grey to orange, fine SAND, trace(+) medium Sand, wet, loose	0	
8	1026894	100		Top 10": Grey, fine SAND, trace medium Sand, wet, loose; Middle 4": Iron-stained, grey, fine SAND, wet, loose; Bottom 10": Grey, medium to fine SAND, trace coarse sand, wet, loose	0	
	1026895	100		Top 14": As above bottom 10"; Bottom 10": Grey, fine SAND, little coarse Sand, wet, loose	0	
12	1026896	62		15": Grey, medium to fine SAND, little coarse Sand, wet, loose	0	
	1026897	62		Top 5": As Above; Bottom 10": Olive-grey, fine SAND, wet, loose	0	
16						
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion						

Printed On: 1/26/1998

Boring ID: NA-SB-37



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add. In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 02/24/97 <b>End Date:</b> 02/24/97	<b>Boring ID</b> <b>NA-SB-38</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> <b>Depth:</b> NRM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026898	62		Top 10": Orange-brown, fine SAND, trace organics, moist, loose; Bottom 5": Brown, fine SAND, trace fill material, loose	0
	1026899	62		15": As Above	0
4	1026900	83		20": Brown, fine SAND, trace fill material (asphalt, concrete, traprock), moderately dense, moist	0
	1026901	83		20": Light brown, fine SAND, moist, loose	0
8	1026902	75		Top 10": Reddish brown, fine to medium SAND, moist, loose; Bottom 8": Reddish brown, fine to medium SAND, wet, loose	0
	1026903	75		18": Alternating bands of grey and iron-stained lenses of fine SAND, wet, loose	0
12	1026904	62		Greenish grey, fine SAND, trace(-) medium Sand, wet, loose	0
	1026905	62		As Above	0
16				Bottom of Boring 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion

Printed On: 2/2/1998

Boring No: NA-SB-38



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add.In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 02/25/97 <b>End Date:</b> 02/25/97		<b>Boring ID:</b> <b>NA-SB-39</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> <b>Depth:</b> NRM <b>At:</b> <b>Hours</b> $\frac{\downarrow}{\uparrow}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\downarrow}{\uparrow}$			<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026908	62		15": Light brown, fine SAND, trace organics, trace Gravel, loose, moist	0	
	1026909	62		15": Light brown, fine SAND, moist to wet, loose	0	
4	1026910 1026911	75		Top 10": Grey, fine SAND, trace(+) medium Sand, wet, loose; Bottom 8": Grey, fine SAND, wet, loose	0	
	1026912	75		Top 15": Grey, fine to medium SAND, trace coarse Sand, wet, loose; Bottom 3": Grey, fine SAND, wet, loose	0	
8	1026913	83		20": Grey, fine to medium SAND, trace(-) coarse Sand, wet, loose	0	
	1026914	83		20": Grey, medium to fine SAND, little coarse Sand, wet, loose	0	
12	1026915	83		As Above	0	
	1026916	83		As Above	0	
16				Bottom of Boring 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion						

Printed On: 1/26/1998  
  
 Boring NA-SB-39

# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add.In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 02/25/97 <b>End Date</b> 02/25/97	<b>Boring ID</b>  <b>NA-SB-40</b>
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DRAFT

<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> <b>Depth:</b> NRM <b>At:</b> _____ <b>Depth:</b> _____ <b>At:</b> _____	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026917	83		20": Brown, fine SAND, trace very fine Sand, trace organics, moist, loose	0
4	1026918	83		Top 8": Brown, fine SAND, trace medium to coarse Sand, trace traprock and asphalt; 4": Black, fill material (asphalt, gravel) wet; 4": Dark brown to black, fine to very fine SAND, trace medium Sand, moist, dense; Bottom 4": Orange-brown, fine SAND, trace(-) medium Sand, moist, loose	0
8	1026919	75		16": Orange-brown, fine SAND, trace(+) medium Sand, trace(-) coarse Sand, trace iron-staining, wet, loose	0
12	1026920	75		Top 2": Grey, fine SAND, medium, dense; Middle 12": Grey, fine to medium SAND, trace(-) coarse Sand, wet, loose; Bottom 2": Grey, fine SAND, wet, moderately dense	0
16	1026921	50		12": As above bottom 2"	0
20	1026922	50		12": Grey, fine to medium SAND, trace(-) coarse Sand, wet, loose	0
24	1026923	62		15": Grey, fine to medium SAND, trace(-) coarse Sand, wet, loose	0
28	1026924	62		Top 5": As Above; Bottom 10": Grey, CLAY, trace Silt and fine Sand, wet, loose	0
32				Bottom of Boring 16'	

**Comments:** Borehole backfilled with bentonite chips upon completion

Printed On: 1/26/1998  
Boring No: NA-SB-40



# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add.In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 02/25/97 <b>End Date</b> 02/25/97	<b>Boring ID</b>  <b>NA-SB-41</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> <b>Depth: NRM At: Hours</b> <b>Depth: At: Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026925	75		Dark brown, fine SAND, trace medium Sand, slightly moist, loose, organic matter (sapric)	0
	1026926	100		Dark brown, fine SAND, trace(-) medium Sand, slightly moist, moderately dense, red-staining, poorly sorted, Quartz, Cobbles	0
4	1026927	50		As Above, wet, no staining	1
	1026928	100		Brown-grey, medium SAND, some(-) trace Sand, wet, loose, poorly sorted	1
8	1026929	42		Brown-grey, fine SAND, trace(-) medium Sand, wet, loose, well sorted, odor	2.4
	1026930	100		Brown-grey, medium SAND, trace fine Sand, wet, loose, poorly sorted	0
12	1026931	0		No Recovery	
	1026932	100		Top 14": Brown-grey, medium SAND, some Sand, wet, loose, poorly sorted; Bottom 10": Olive grey, varved CLAY, wet, dense	0
16				Bottom of Boring 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion

Printed On: 1/26/1998

Boring NA-SB-41



# GEOLOGIC BORING LOG

<b>Project:</b> Silver La. Pickle Add.In <b>LEA Comm No:</b> 68V7040 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 02/25/97 <b>End Date:</b> 02/25/97		<b>Boring ID:</b> <b>NA-SB-42</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> Micro Core <b>Groundwater Observations:</b> <b>Depth:</b> NRM <b>At:</b> Hours <b>Depth:</b> <b>At:</b> Hours			<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GP5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026933	50		Brown, fine SAND, trace(-) medium Sand, slightly moist, loose, sapric organic matter	0	
	1026934	100		Dark brown, fine SAND and(-) medium SAND, slightly moist, medium dense, poorly sorted, mottled, strong rank odor, assorted debris (tile, glass, rubber, etc. 4" from bottom liner)	0	
4	1026935	50		Greyish brown, fine SAND, trace(-) medium Sand, slightly moist, moderately dense, well sorted, black-staining, strong rank odor	0	
	1026936	100		Greyish brown, medium SAND, some(+) fine Sand, moist, loose, poorly sorted, slight rank odor	0	
8	1026937	50		As Above, wet	0	
	1026938	100		As Above, no odor	0	
12	1026939			No Recovery		
	1026940	83		Top 8": As Above; Bottom 2": Olive-grey; varved CLAY, wet, dense	0	
16				Bottom of Boring 16'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion						

Printed On: 1/26/1998

Boring No: NA-SB-42



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# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 06-02-97 <b>End Date:</b> 06-02-97		<b>Boring ID:</b> <b>NA-SB-43</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\nabla$ <b>Depth:</b> At: Hours $\nabla$			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1634280	100		Top 8": Organic matter, little brown, fine SAND and SILT; Middle 8": Yellowish-brown, fine to medium SAND, trace Silt, dry, loose; Bottom 13": Dark brown and black stained, trace SAND, little Silt, trace Cobbles and Cinders, slightly moist, moderately dense	0.9	
	1634281 1634282			Top 16": Same as last 13"; Bottom 8": Yellowish-brown, fine to medium SAND, trace Silt, moist, loose	1.1	
4	1634283	71		Yellowish-brown, fine to medium SAND, moist, loose; Top 11"	1.3	
	1634284			Top 11": Brownish-yellow to greyish-brown, fine to medium SAND, wet, loose; Bottom 6": Greyish-brown, fine to very fine SAND, wet, loose	1.2	
8	1634285	75		Top 8": Grey, very fine SAND, wet, loose; Bottom 8": Grey, fine to medium SAND, wet, loose	1.4	
	1634286			Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	1.3	
12	1634287	62		As Above; Top 11": As Above; Bottom 4": Grey, CLAY, wet, loose	1.4	
	1634288				3.2	
16	Bottom of Boring 16'					
20						
24						
<b>Comments:</b> Boring backfilled with bentonite						

Printed On: 1/26/1998

Boring NA-SB-43



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# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 06-02-97 <b>End Date:</b> 06-02-97		<b>Boring ID:</b> <b>NA-SB-44</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours				<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>		
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1634289	88		Top 1": Organic matter, some brown, fine SAND, dry, loose;	0.6	
	1634290			Next 5": Strong, brown, fine SAND, trace Silt, trace organic matter, dry, loose; Next 2": Fine and coarse GRAVEL with a Cobble; Bottom 13": Dark yellowish-brown, fine SAND, little Silt, slightly moist, medium dense; Top 1": Cobble, Middle 13": Dark yellowish-brown, fine SAND, little Silt, trace fine Gravel, slightly moist, moderately dense;	0.4	
4	1634291	75		Bottom 7": Brownish-yellow, fine SAND, trace Silt, moist, moderately dense	1.2	
	1634292			Yellowish-brown, fine(+) to medium SAND, moist, loose; As Above, wet	1.5	
8	1634293	62		Top 10": Greyish-brown, medium to fine SAND, wet, loose;	1.1	
	1634294			Bottom 5": Grey, very fine to fine SAND, wet, loose; Top 7": Same as last 5"; Bottom 8": Grey, medium to fine SAND, wet, loose	1.0	
12	1634295	62		Grey, medium(+) to fine SAND, trace coarse Sand, wet, loose; As Above	1.6	
	1634296				1.4	
16				Bottom of Boring 16'		
20						
24						
<b>Comments:</b> Boring backfilled with bentonite						

Printed On: 1/26/1998

Boring No: NA-SB-44



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# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 06-02-97 <b>End Date:</b> 06-02-97		<b>Boring ID:</b> <b>NA-SB-45</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1634297	92		Top 14": Dark yellowish-brown to yellowish-brown, fine SAND, some Silt, trace(-) medium Sand, trace organic matter, slightly moist, loose; Middle 5": Dark yellowish-brown, fine SAND, little Silt, trace fine Gravel, slightly moist, loose; Bottom 3": Strong brown, fine to medium SAND, trace fine Gravel, slightly moist, loose; Top 11": Black-stained and dark brown, fine SAND, little Silt, trace Coal and Cinders, slightly moist, loose; Bottom 11": Brownish-yellow, fine to medium SAND, moist, loose	0.8	
	1634298				1.0	
4	1634299	62		Yellowish-brown, fine to medium SAND, moist, loose; Top 12": As Above, wet; Bottom 3": Grey, very fine to fine SAND, wet, loose	0.6	
	1634300				1.1	
8	1634301	58		Grey, very fine to fine SAND (8") grading to fine to medium Sand (9"), wet, loose; Grey, medium(+) to fine SAND, trace(-) coarse Sand, wet, loose	0.4	
	1634302				1.1	
12	1634303	62		15": As above; Top 12": Grey, medium to fine SAND, trace coarse Sand, wet, loose; Bottom 3": Grey CLAY, wet, loose	1.2	
	1634304				4.9	
16				Bottom of Boring 16'		
20						
24						
<b>Comments:</b> Boring backfilled with bentonite						

Printed On: 1/26/1998  
Boring ID: NA-SB-45



# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 06-03-97 <b>End Date</b> 06-03-97	<b>Boring ID</b> <b>NA-SB-46</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> Depth:            At:                    Hours $\nabla$ Depth:            At:                    Hours $\nabla$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634307	100		Top 12": Yellowish brown, fine SAND, little Silt, trace organic matter, slightly moist, loose; Mid 5": Strong brown, fine SAND, some silt, trace coal and cinders, slightly moist, moderately dense; Bottom 5": Dark brown to black stained, fine SAND, trace organic matter, with Silt, slightly moist, moderately dense	32.0
	1634308 1634309	100			>1000
4	1634310	58		Same as last 5", moist	500
	1634311	58		Top 6": Dark brown and black stained SILT, with fine Sand, trace organic matter, moist, loose; Bottom 8": Brownish grey, fine to medium SAND, trace Silt, trace organic matter, moist, loose	150
8	1634312	50		Grey, fine to medium SAND (7"), grading to medium(+) to fine SAND, wet, loose	0.2
	1634313	50		Grey, medium(+) to fine SAND, trace(+) coarse Sand, wet, loose	0.2
12	1634314	54		Grey, medium(+) to fine SAND, wet, loose	0.4
	1634315	54		Top 5": Grey, medium to fine SAND, wet, loose; Bottom 8": Grey, varved CLAY, wet, loose	18.
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 1/26/1998  
Boring No: NA-SB-46



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 06-03-97 <b>End Date:</b> 06-03-97		<b>Boring ID:</b> <b>NA-SB-47</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1634316	58		Yellowish brown, fine SAND, with Silt, trace organic matter, trace coal, cinder and glass pieces, slightly moist, loose	0.0	
	1634317	58		Top 7": As Above, moderately dense; Bottom 7": Dark brown to black, stained SILT, little fine Sand, little organic matter, moist, loose	0.0	
4	1634318	75		Top 5": Same as last 7", wet; Bottom 13": Grey, fine to medium SAND, trace Silt, trace fine brick, organic matter, wet, loose	0.2	
	1634319	75		Grey, fine to medium SAND, grading to medium to fine SAND, wet, loose; trace organic matter	30.0	
8	1634320	54		Grey, medium to fine SAND, trace coarse Sand, wet, loose,	8.0	
	1634321	54		As Above	1.0	
12	1634322	75		Top 12": As Above, trace coarse SAND; Bottom 6": Grey, varved CLAY, wet, loose	5.0	
	1634323	75		Same as last 6"	40.0	
16				Bottom of Boring at 16'		
20						
24						
<b>Comments:</b> Boring backfilled with bentonite						

Printed On: 1/26/1998

Boring NA-SB-47



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# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 06-03-97 <b>End Date:</b> 06-03-97		<b>Boring ID:</b> <b>NA-SB-48</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\frac{1}{6}$ <b>Depth:</b> At: Hours $\frac{1}{6}$			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1634324	50		Top 1": Organic matter with brown SILT and fine SAND; Bottom 11": Yellowish brown fine SAND, trace Silt, trace organic matter, dry, loose	0.0	
	1634325	50		Top 2" Same as last 11": Bottom 10": Dark yellowish brown, fine SAND and SILT, trace organic matter, trace glass pieces, trace coal and cinders, slightly moist, loose	2.2	
4	1634326	62		Top 2": Dark brown, SILT, little fine Sand, little organic matter, wet, loose; Bottom 13": Brownish grey, fine SAND, trace medium Sand, trace fibric organic matter, wet, loose	0.2	
	1634327	62		Top 3": Same as last 13": Middle 2": Grey, coarse to medium SAND, trace fine gravel; Bottom 10": Brownish grey, fine to medium SAND, trace organic matter, wet, loose	1.3	
8	1634328	67		Top 2": Same as last 10": Middle 5": Grey, fine to very fine SAND, wet, loose; Bottom 8": Grey medium(+) to fine SAND, trace(+) coarse Sand, wet, loose	0.2	
	1634329	67		Same as last 8", trace(-) coarse SAND	0.5	
12	1634330	62		Grey, fine to medium SAND, wet, loose	0.2	
	1634331			Grey, varved CLAY, wet to moist, loose to moderately dense	28.0	
16				Bottom of Boring at 16'		
20						
24						
<b>Comments:</b> Boring backfilled with bentonite						

Printed On: 1/26/1998

Boring No: NA-SB-48



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# GEOLOGIC BORING LOG

<b>Project:</b> Pickle Co. Soil Piles Add Inv. <b>LEA Comm No:</b> 68V7064 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 06-03-97 <b>End Date:</b> 06-03-97		<b>Boring ID:</b> <b>NA-SB-49</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1634332	85		Strong brown to yellowish brown, SILT with fine SAND, trace organic matter, dry to slightly moist, loose	0.0	
4	1634333	85		Top 11": Dark yellowish brown, SILT, with fine Sand, trace coal and cinders, trace(-) coarse gravel, slightly moist, loose; Bottom 6": Dark brown to black, stained SILT, little fine Sand, little organic matter, moist, loose	840	
4	1634334	80		Top 3": Same as last 6"; Bottom 13": Grey, fine(+) to very fine SAND, grading to fine to medium Sand, trace organic matter, moist, loose	360	
8	1634335	80		Grey, fine to medium SAND, grading to medium to fine Sand, trace organic matter, wet, loose	12.0	
8	1634336	70		Grey, fine to very fine SAND, wet, loose	5.0	
12	1634337	70		Grey, fine SAND, (5") grading to medium to fine Sand, wet, loose, trace coarse Sand	0.7	
12	1634338	60		Grey, fine to medium SAND, wet, loose	2.2	
16	1634339	60		Grey, varved CLAY, wet, loose	30.0	
16				Bottom of Boring at 16'		
20						
24						
<b>Comments:</b> Boring backfilled with bentonite						

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Boring ID: NA-SB-49



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 08/04/97 <b>End Date</b> 08/04/97	<b>Boring ID</b>  <b>NA-SB-55</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1640014	92		Punched through 3" asphalt; Top 6": Process stone, fine and coarse Gravel, little asphalt pieces, trace concrete pieces; Middle 10": Strong brown, fine SAND, little Silt, trace asphalt pieces, trace medium Sand, slightly moist, loose; Bottom 28": Yellowish brown, fine to medium SAND; moist to wet, loose, wet at 40"	2.3
	1640015				2.2
4	1640016	75		Top 6": Brown, fine SAND, trace medium Sand, trace Silt, wet, loose; Middle 22": Yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose; Bottom 8": Light olive brown, fine SAND, wet, loose	3.2
	1640017 1640018				2.2
8	1640019	496			Greyish brown, fine to coarse SAND, trace pea size Gravel, wet, loose, slight coarsening downward
	1640020			1.9	
12	1640021	50		As Above, without coarsening downward	1.9
	1640022				1.2
16				Bottom of Boring at 16'	
20					
24					

Printed On: 2/9/1998

Boring No: NA-SB-55

**Comments:**



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 08/04/97 <b>End Date:</b> 08/04/97		<b>Boring ID:</b> <b>NA-SB-56</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1640023	88		Punched through 4" Asphalt; Top 10": Reddish brown, fine and coarse GRAVEL, little fine to coarse Sand, trace Silt, trace asphalt, concrete pieces; Middle 10": Yellowish brown, fine SAND, trace Silt, trace medium Sand, slightly moist, loose; Bottom 22": Yellowish brown, fine SAND, trace medium Sand, moist to wet, loose, wet at 37"	1.5	
	1640024				1.7	
4	1640025	62		Top 6": Yellowish brown, fine SAND, trace Silt, wet, loose; Bottom 24": Yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose, dark brown staining at 12"	2.3	
	1640026				2.5	
8	1640027	98		Yellow brown to greyish brown, medium to fine SAND, trace coarse Sand, trace(-) pea size Gravel, wet, loose	2.0	
	1640028				1.9	
12	1640029	83		Top 28": As Above, no Gravel; Bottom 12": Grey CLAY, trace brown, fine to very fine Sand, wet, moderately dense, thinly laminated	1.5	
	1640030				1.0	
16				Bottom of Boring at 16'		
20						
24						
<b>Comments:</b>						

Printed on: 2/9/1998

Boring NA-SB-56



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 08/04/97 <b>End Date:</b> 08/04/97		<b>Boring ID:</b> <b>NA-SB-57</b>		
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>				
<b>Depth:</b> At: <b>Hours</b> <b>Depth:</b> At: <b>Hours</b>							
Elevation/ Depth	Sample Information			Sample Description	(ppm)		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness			
0	1640031	79		Punched through 3" asphalt; Top 6": Red, fine to coarse SAND and process stone, fine and coarse GRAVEL, trace bituminous asphalt, dry, loose; Bottom 32": Strong brown to yellowish brown, fine SAND, trace Silt (top 10"), trace medium Sand, slightly moist to moist, loose	2.1		
	1640032				2.5		
4	1640033	75		Top 18": Yellowish brown, fine SAND, trace medium Sand, moist to wet, loose, micaceous, wet at 14"; Bottom 18": Yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose	1.6		
	1640034				2.0		
8	1640035	88		Top 20": Greyish brown, fine to medium SAND, trace coarse Sand, wet, loose; Middle 6": Greyish brown, fine to very fine SAND, trace medium Sand, wet, loose; Bottom 16": Same as top 20", trace pea size Gravel	1.1		
	1640036				1.2		
12	1640037	75		Top 8": Same as above, last 16" (yellowish brown); Middle 18": Greyish brown, fine to medium SAND, wet, loose; Bottom 10": Grey, CLAY, trace fine to very fine Sand and Silt, wet, loose	1.2		
	1640038				1.3		
16				Bottom of Boring at 16'			
20							
24							
<b>Comments:</b>							

Printed On: 2/9/1998 Boring No: NA-SB-57



# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 08/04/97 <b>End Date:</b> 08/04/97		<b>Boring ID:</b> <b>NA-SB-58</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1640039	83		Punched through 3" asphalt; Top 5": Process stone, fine and coarse GRAVEL, trace asphalt pieces, trace red, fine to coarse Sand; Bottom 35": Strong brown to light yellowish brown, fine SAND, trace Silt (top 10"), trace medium Sand, dry to moist, loose	1.7	
	1640040				2.1	
4	1640041	67		Yellowish brown, fine to medium SAND, trace coarse Sand (Bottom 12"), moist to wet, loose, wet at 8"	2.2	
	1640042				2.4	
8	1640043	75		Top 28": Greyish brown, fine to medium SAND, trace coarse Sand, wet, loose; Bottom 8": Greyish brown, fine to coarse SAND, trace pea size Gravel, wet, loose	1.8	
	1640044				1.9	
12	1640045	83		Top 16": As Above; Middle 20": Greyish brown, fine to medium SAND, wet, loose; Bottom 4": Grey, CLAY, trace fine to very fine Sand and Silt, wet, moderately dense	1.8	
	1640046				1.5	
16	Bottom of Boring at 16'					
20						
24						
<b>Comments:</b>						

Printed On: 2/9/1998

Boring No. NA-SB-58



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 08/04/97 <b>End Date</b> 08/04/97	<b>Boring ID</b>  <b>NA-SB-59</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: <b>Hours</b> <b>Depth:</b> At: <b>Hours</b>	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1640047	88		Punched through 3" asphalt; Top 4": Reddish brown, fine to coarse SAND, trace fine and coarse Gravel, trace asphalt pieces; Bottom 38": Strong brown to yellowish brown, fine SAND, trace Silt (top 12"), trace medium Sand, dry to moist, loose, slight coarsening downward	2.2
	1640048				1.9
4	1690049	79		Yellowish brown, fine to medium SAND, trace coarse Sand, trace(-) pea size Gravel, wet, loose, drk brown staining at 12-14"	2.3
	1640050				1.8
8	1640051	62		As Above, Greyish brown, no staining, slight coarsening downward	1.8
	1640052				1.3
12	1640053	100		Top 39": Greyish brown, fine to medium SAND, trace(-) coarse Sand, wet, loose; Bottom 9": Grey, CLAY, trace fine to very fine Sand and Silt, wet, loose	1.0
	1640054				1.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 2/9/1998  
  
Boring No: NA-SB-59



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 08/05/97 <b>End Date</b> 08/05/97	<b>Boring ID</b>  <b>NA-SB-60</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1640060	92		Punched through 3" asphalt; top 8": Reddish brown, fine and coarse GRAVEL, fine to coarse Sand, trace bituminous asphalt; Bottom 36": Strong brown to yellowish brown, fine SAND, trace Silt, trace medium Sand, grading to fine Sand, trace medium Sand, dry to moist, loose	1.6
	1640061				2.1
4	1640062 1640063	62		Top 25": Yellowish brown, fine to medium SAND, moist to wet, loose, wet at 12"; Bottom 5": Brown, fine to very fine SAND, wet, loose	1.7
	1640064				1.5
8	1640065	75		Top 12": Yellowish brown, medium to fine SAND, wet, loose, dark brown staining at 4-8"; Middle 10": Brown, fine to medium SAND, trace coarse Sand, wet, loose; Bottom 14": Greyish brown, fine to coarse SAND, wet, loose	1.4
	1640066				1.4
12				No Recovery	
				No Recovery	
16				Bottom of Boring at 16'	
20					
24					

Comments:

Printed On: 2/9/1998

Boring NA-SB-60



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 08/05/97 <b>End Date:</b> 08/05/97		<b>Boring ID:</b> <b>NA-SB-61</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> At: Hours <b>Depth:</b> At: Hours						

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1640069	83		Top 16": Brown, fine SAND, little Silt, trace medium Sand, trace organic matter, dry to slightly moist, loose; Bottom 24": Strong brown to yellowish brown, fine SAND, trace Silt, trace medium Sand, grading to fine Sand, trace medium Sand, slightly moist to moist, loose	1.2
	1640070				1.4
4	1640071	83		Yellowish brown, medium to fine SAND, trace coarse Sand, moist to wet, loose, wet at 16"	1.4
	1640072				1.3
8	1640073	75		Brown to yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose	1.0
	1640074				0.8
12	1640075	58		Top 12": Greyish brown, fine to medium SAND, wet, loose; Bottom 16": Greyish brown, medium to fine SAND, trace coarse Sand, wet, loose	2.5
	1640076				3.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 2/9/1998

Boring No: NA-SB-61



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# GEOLOGIC BORING LOG

<b>Project:</b> Silver Lane Pickle Co. Phase I/II <b>LEA Comm No:</b> 68V7060 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 08/05/97 <b>End Date</b> 08/05/97	<b>Boring ID</b>  <b>NA-SB-62</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1640077	75		Top 8": Brown, fine SAND, little Silt, trace medium Sand, trace organic matter; Middle 6": Strong brown, fine SAND, trace Silt, trace medium Sand, slightly moist, loose; Bottom 22": Strong brown to light yellowish brown, fine SAND, trace medium Sand, slightly moist to moist, loose	1.2
	1640078				1.1
4	1640079	62		Top 12": Light yellowish brown, fine SAND, trace medium Sand, moist to wet, loose, wet at 10"; Next 5": Yellowish brown, medium SAND, trace coarse Sand, wet, loose; Next 6": Brown, fine to very fine SAND, wet, loose; Bottom 7": Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	1.3
	1640080				1.5
8	1640081	71		Yellowish brown to greyish brown, medium to fine SAND, trace coarse Sand, trace pea size Gravel, dark brown and orange staining at 6-18", wet, loose	1.1
	1640082				1.0
12	1640083	58		Top 10": Greyish brown, fine to very fine SAND, wet, loose; Middle 12": Greyish brown, fine to coarse(+) SAND, trace pea size Gravel, wet, loose; Bottom 6": Greyish brown, medium to fine SAND, wet, loose	0.7
	1640084				0.3
16				Bottom of Boring at 16'	
20					
24					

**Comments:**

Printed On: 2/9/1998

Boring NA-SB-62







**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> LEA Commission Number:		<b>Start Date:</b> 1/23/1998		<b>Boring ID:</b> NA-SB-65	
<b>Client:</b> Location: P&W East Hartford		<b>End Date:</b> 1/23/1998			
<b>Drilling Contractor:</b> Loureiro Engineering Associates		<b>Logged by:</b> Boris Tomicic			
<b>Drilling Method:</b> Direct Push		<b>Drilling Foreman:</b> Dave Brisson			
<b>Sampling Method:</b> Macro Core		<b>Drill Rig:</b> Geoprobe 5400			
<b>Groundwater Observation:</b>		<b>Surface Elevation:</b> 0.00			
<b>Depth:</b>	at: ,	<b>Northing:</b> 0.0			
<b>Depth:</b>	at: Hours &	<b>Easting:</b> 0.0			
Depth	Sample Information			Soil Description	PID/FID ppm
	Sample No.	Recovery %	Blows /6"	Color, Primary Grata Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structure, Density, Cohesiveness, Other	
0         4		92		top 14" dark brown fine SAND and SILT, slightly moist, medium dense, well sorted, organic matter next 6" brown fine SAND, trace (-) medium SAND, slightly moist, dense, poorly sorted bottom 24" brown fine SAND, some (+) medium SAND, slightly moist, moderately dense, poorly sorted	
<b>Comments:</b>					



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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> LEA Commission Number:		<b>Start Date</b> 1/23/1998		<b>Boring ID</b>  NA-SB-71	
<b>Client:</b> Location: P&W East Hartford		<b>End Date</b> 1/23/1998			
<b>Drilling Contractor:</b> Loureiro Engineering Associates		<b>Logged by:</b> Boris Tomicic			
<b>Drilling Method:</b> Direct Push		<b>Drilling Foreman:</b> Dave Brisson			
<b>Sampling Method:</b> Macro Core		<b>Drill Rig:</b> Geoprobe 5400			
<b>Groundwater Observation</b>		<b>Surface Elevation:</b>		0.00	
<b>Depth:</b> at: :		<b>Northing:</b>		0.0	
<b>Depth:</b> at: Hours &		<b>Easting:</b>		0.0	
Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0         4		90		top 4" dark brown SILT, some (+) fine SAND, slightly moist, medium dense, poorly sorted, organic matter next 13" brown fine SAND, some (+) SILT, slightly moist, medium dense, poorly sorted next 1" brown fine SAND, trace (+) medium SAND, slightly moist, medium dense, poorly sorted, iron staining bottom 1" brown fine SAND, trace (+) medium SAND, slightly moist, medium dense, poorly sorted	
<b>Comments:</b>					



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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> LEA Commission Number:		<b>Start Date:</b> 1/23/1998		<b>Boring ID:</b> NA-SB-79	
<b>Client:</b> Location: P&W East Hartford		<b>End Date:</b> 1/23/1998			
<b>Drilling Contractor:</b> Loureiro Engineering Associates		<b>Logged by:</b> Boris Tomicic			
<b>Drilling Method:</b> Direct Push		<b>Drilling Foreman:</b> Dave Brisson			
<b>Sampling Method:</b> Macro Core		<b>Drill Rig:</b> Geoprobe 5400			
<b>Groundwater Observation</b>		<b>Surface Elevation:</b> 0.00			
<b>Depth:</b>	<b>at:</b>	<b>Northing:</b>	0.0		
<b>Depth:</b>	<b>at:</b>	<b>Easting:</b>	0.0		
		<b>Hours &amp;</b>			

Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0         4		90		top 16" topsoil next 5" brown fine SAND, trace (-) SILT, moist, moderately dense, poorly sorted bottom 22" brown fine SAND, wet, loose	

**Comments:**



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**GEOLOGIC BORING LOG**

**DRAFT**

<b>Project:</b> LEA Commission Number:			<b>Start Date</b> 1/23/1998	<b>Boring ID</b> NA-SB-80	
<b>Client:</b> Location: P&W East Hartford			<b>End Date</b> 1/23/1998		
<b>Drilling Contractor:</b> Loureiro Engineering Associates		<b>Logged by:</b> Boris Tomicic			
<b>Drilling Method:</b> Direct Push		<b>Drilling Foreman:</b> Dave Brisson			
<b>Sampling Method:</b> Macro Core		<b>Drill Rig:</b> Geoprobe 5400			
<b>Groundwater Observation</b>		<b>Surface Elevation:</b> 0.00			
<b>Depth:</b> 3.5	<b>at:</b> :	<b>Northing:</b> 0.0			
<b>Depth:</b>	<b>at:</b> Hours &	<b>Easting:</b> 0.0			
Depth	Sample Information			Soil Description Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	PID/FID ppm
	Sample No.	Recovery %	Blows /6"		
0       4		88		top 1' topsoil 12" - 42"r brown fine SAND, some (-) medium SAND, moist to wet, moderately dense to loose, poorly sorted	

**Comments:**



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**GEOLOGIC BORING LOG**

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<b>Project:</b> LEA Commission Number:	<b>Start Date</b> 1/23/1998	<b>Boring ID</b> NA-SB-98
<b>Client:</b> Location: P&W East Hartford	<b>End Date</b> 1/23/1998	

<b>Drilling Contractor:</b> Loureiro Engineering Associates	<b>Logged by:</b> Boris Tomicic
<b>Drilling Method:</b> Direct Push	<b>Drilling Foreman:</b> Dave Brisson
<b>Sampling Method:</b> Macro Core	<b>Drill Rig:</b> Geoprobe 5400
<b>Groundwater Observation</b>	<b>Surface Elevation:</b> 0.00
<b>Depth:</b> 0.8 at: ,	<b>Northing:</b> 0.0
<b>Depth:</b> at: Hours &	<b>Easting:</b> 0.0

Depth	Sample Information			Soil Description	PID/FID ppm
	Sample No.	Recovery %	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity Angularity, Sedimentary Structure, Density, Cohesiveness, Other	
0   4		88		0" - 20" topsoil 20" - 42" greyish brown fine SAND, some (+) medium SAND, wet, loose, poorly sorted	

**Comments:**



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> M.E.R.L. Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 6/26/96 <b>End Date:</b> 6/26/96	<b>Boring ID</b> <b>NK-SB-05</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\nabla$ Depth:            At:      Hours $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015511	61		2": Asphalt; 12": Dark brown, fine SAND, with medium Sand, some coarse Sand, little Silt, trace fine Gravel, slightly dense, moist, wood and roots fragments	43.9
	1015512	100		4": Reddish brown, fine to medium SAND, little coarse Sand, trace Silt, moderately loose, root fragments; 6": Yellowish brown, fine to medium SAND, trace coarse Sand, moderately loose, moist; 4": Greyish brown, fine SAND, trace(+) medium Sand, trace(-) coarse Sand, moderately loose, moist; 9": Reddish brown, medium to coarse SAND, some fine Sand, trace(-) fine Gravel, loose, moist	65.0
4	1015513	100		As above, wet	17.5
	1015514	100		As above	28.3
8	1015515	100		Grey, medium SAND, with coarse Sand, some fine Sand, trace(-) fine Gravel, loose, wet	12.3
	1015516	100		12": As above; 6": Reddish brown, as above; 5": Olive grey, varved CLAY, trace Silt, cohesive, wet	27.6
12	1015517	100		As above	5.6
	1015518	100		As above	15.6
16				Bottom of boring 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-05



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> M.E.R.L. Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 6/26/96 <b>End Date:</b> 6/26/96	<b>Boring ID:</b> <b>NK-SB-06</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015527	100		2": Asphalt; 9": Dark brown, fine SAND, little medium Sand, trace fine Gravel, moderately loose, slightly moist, roots; 12": Light yellowish brown, fine to medium SAND, little coarse Sand, trace Silt, loose, moist	33.6
	1015528 1015529	100		19": As above; 4": Dark brown, medium SAND, some fine Sand, little coarse Sand, loose, very moist	42.9 41.0
4	1015530	100		Yellowish brown, fine SAND, trace medium Sand, trace(-) Silt, moderately loose, wet	8.3
	1015531	100		20": As above; 3": Yellowish brown, fine to medium SAND, some coarse Sand, trace(+) fine Gravel, trace(-) Silt, loose, wet	22.7
8	1015532	100		Light grey, medium SAND, some fine/coarse Sand, trace(-) Silt, loose, wet	136.1
	1015533	65		6": As above; 6": Yellow brown, fine to medium SAND, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, moderately loose, wet; 3": Dark reddish brown, medium to coarse Sand, little fine Sand, trace(+) fine Gravel, trace(-) Silt, loose, wet; 8": Olive grey, varved CLAY, cohesive, wet	12.6
12	1015534	100		As Above	32.1
	1015535	96		As Above	76.3
16				Bottom of boring 15.0'	
20					
24					

Printed On: 1/26/1998  
Boring NK-SB-06

**Comments:** Borehole backfilled with bentonite chips upon completion.



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> M.E.R.L. Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 6/26/96 <b>End Date</b> 6/26/96	<b>Boring ID</b>  <b>NK-SB-07</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\nabla$ Depth:            At:      Hours $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015519	61		2": Asphalt; 12": Dark brown, fine SAND, with medium Sand, little coarse Sand, trace fine Gravel, slightly dense, slightly moist, roots and wood fragments	7.4
	1015520	100		10": Reddish brown, fine to medium SAND, little coarse Sand, trace Silt, loose, moist; 13": Reddish brown, medium to coarse SAND, some fine Sand, trace fine Gravel, loose, moist	29.7
4	1015521	100		As above, wet	17.1
	1015522	100		Light reddish grey, medium SAND, with fine Sand, some coarse Sand, trace Silt, loose, wet	28.2
8	1015523	100		12": As above; 11": Reddish yellow, medium to coarse SAND, with fine Sand, little fine Gravel, trace Silt, loose, wet	8.0
	1015524	100		14": As above; 9": Light olive grey, varved CLAY, little Silt, trace fine Sand, slightly cohesive, wet	7.6
12	1015525	100		Light olive grey, varved CLAY, cohesive, wet	26.4
	1015526	100		As above	12.5
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/26/1998

Boring No: NK-SB-07

**Comments:** Borehole backfilled with bentonite chips upon completion.



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# GEOLOGIC BORING LOG

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<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 06/27/96 <b>End Date</b> 06/27/96	<b>Boring ID</b>  <b>NK-SB-08</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015547	100		3": Gravel (processed stone); 9": Dark brown, fine SAND, some medium Sand, trace(+) Silt, trace(-) coarse Sand, slightly moist, moderately dense; 11": Dark yellowish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, slightly moist, moderately dense	1.6
4	1015548	100		Light yellowish brown, medium SAND, with fine Sand, little coarse Sand, trace fine Gravel, moist, moderately loose	3.0
4	1015549	100		Dark yellow, medium SAND, some fine Sand, little coarse Sand, trace Silt, trace(-) coarse Sand, moderately loose, wet	1.2
8	1015550	100		As Above	2.5
8	1015551	100		As Above	4.1
12	1015552	100		13": As Above; 10": Light grey, varved CLAY, some fine Sand, little Silt, trace(+) medium Sand, trace(-) cohesive, wet	3.7
12	1015553	100		Light olive grey, CLAY (varved), trace Silt, cohesive, wet	6.2
16	1015554	100		As Above	4.6
16				Bottom of Boring at 15.0'	

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring NK-SB-08



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# GEOLOGIC BORING LOG

<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT		<b>Start Date</b> 06/27/96 <b>End Date</b> 06/27/96	<b>Boring ID</b>  <b>NK-SB-09</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015536	100		2": Processed stone; 21": Dark yellowish brown, fine SAND, little medium Sand, trace(+) Silt, trace(-) coarse Sand, slightly dense, moist	0.0
	1015537 1015538	100		As above	2.4 2.8
4	1015539	100		As above, wet	4.0
	1015540	100		As above	5.0
8	1015541	30		As above	6.0
	1015542	74		8": As above; 9": Light olive grey, varved CLAY, some fine Sand, little Silt, trace(+) medium Sand, cohesive, wet	6.8
12	1015543	100		Light olive grey, CLAY, some Silt, little fine Sand, trace(-) medium Sand, cohesive, wet	5.2
	1015544	100		Light olive grey, CLAY, trace(-) Silt, cohesive, wet	5.1
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-09



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 6/27/96 <b>End Date</b> 6/27/96	<b>Boring ID</b> <span style="font-size: 1.2em; font-weight: bold;">NK-SB-10</span>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015555	100		8": Dark brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, moderately dense, slightly moist	2.8
	1015556	100		15": Dark yellowish brown, medium SAND, with fine Sand, trace(+) coarse Sand, trace(-) Silt, moderately loose, moist	4.6
4				As above	
	1015557	100		As above, wet	4.9
	1015558	100		As above	4.5
8	1015559	100		As above	4.9
	1015560	100		As above; 7": Light olive grey, varved CLAY, some fine Sand, little Silt, trace(+) medium Sand, cohesive, wet	5.7
12	1015561	100		Light olive grey, CLAY, some Silt, little fine Sand, trace(+) medium Sand, cohesive, wet	4.2
	1015562	100		As above	3.0
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/23/1998

Boring NK-SB-10

**Comments:** Borehole backfilled with bentonite chips upon completion.



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# GEOLOGIC BORING LOG

<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 6/28/96 <b>End Date</b> 6/28/96	<b>Boring ID</b>  <b>NK-SB-11</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015479	100		3": Gravel, processed stone; 7": Dark brown, fine SAND, some medium Sand, little Silt, trace(-) coarse Sand, slightly moist, slightly dense; 13": Reddish brown, fine SAND, some medium Sand, little coarse Sand, trace Silt, very moist, loose As above, very moist	2.0
	1015480 1015481	100			1.8 1.8
4	1015482	100		As above, wet	4.0
	1015483	100		As above	8.2
8	1015484	100		Reddish brown, medium to coarse SAND, with fine Sand, little Silt, trace fine Gravel, wet, moderately loose	5.2
	1015485	100		17": As above; 6": Olive grey, varved CLAY, with fine Sand, some Silt, little medium Sand, trace(-) coarse Sand, wet, cohesive	3.8
12	1015486	100		Olive grey, CLAY, trace Silt, wet, cohesive	6.0
	1015487	100		As above	6.2
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

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Boring No: NK-SB-11



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# GEOLOGIC BORING LOG

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<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 6/28/96 <b>End Date:</b> 6/28/96	<b>Boring ID:</b> <b>NK-SB-12</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015488	100		Reddish brown, fine to medium SAND, some Silt, little coarse Sand, trace(-) fine Gravel, slightly moist, loose	2.6
	1015489	100		As above	3.5
4	1015490	100		As above, wet	4.1
	1015491	100		As above	11.0
8	1015492	100		Brown, fine SAND and SILT, trace medium Sand, wet, slightly cohesive	0.6
	1015493	100		13": As above; 10": Olive grey, varved CLAY, little Silt, trace(-) fine Sand, wet, cohesive	0.7
12	1015494	100		As above	0.2
	1015495	100		As above	0.6
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

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Boring NK-SB-12



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# GEOLOGIC BORING LOG

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<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 6/28/96 <b>End Date</b> 6/28/96	<b>Boring ID</b>  <b>NK-SB-13</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015496	100		Yellowish brown, fine SAND, some medium Sand, little Silt, trace(+) coarse Sand, trace(-) fine Gravel, slightly moist, moderately loose	0.3
1	1015497	100		Dark yellowish brown, medium SAND, with fine Sand, some coarse Sand, little Silt, trace(-) fine Gravel, very moist, loose	0.4
4	1015498	100		As above, wet	0.2
5	1015499	100		As above	0.3
8	1015500	100		Brown, fine SAND, some Silt, wet, stiff	0.1
10	1015501	100		Olive grey, varved CLAY, some Silt, little fine Sand, trace(-) medium Sand, wet, cohesive	0.5
12	1015502	100		Olive grey, varved CLAY, trace Silt, wet, cohesive	0.2
14				No recovery (not enough for sample)	0.1
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite

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Boring No: NK-SB-13



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# GEOLOGIC BORING LOG

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<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/8/96 <b>End Date</b> 7/8/96	<b>Boring ID</b>  <b>NK-SB-14</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015581	100		Dark brown, fine SAND, little Silt, medium Sand, trace coarse Sand, slightly moist, slightly dense	0.6
	1015582	100		Dark yellow, fine to medium SAND, trace coarse Sand, trace(-) Silt, very moist, moderately loose	0.8
4	1015583	100		As above, wet	1.4
	1015584	100		Reddish brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, moderately loose, wet	1.0
8	1015585	100		Light yellowish brown, fine SAND, with Silt, trace(+) medium Sand, wet, moderately loose	0.8
	1015586	100		8": As above; 15": Olive grey, varved CLAY, stiff, wet	0.0
12	1015587	100		As above	0.8
	1015588	100		As above	0.4
16				Bottom of boring at 15.0'	
20					
24					

Printed on: 1/23/1998  
Boring NK-SB-14

**Comments:** Borehole backfilled with bentonite chips upon completion.



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# GEOLOGIC BORING LOG

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<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/8/96 <b>End Date</b> 7/8/96	<b>Boring ID</b>  <b>NK-SB-15</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:                      Hours Depth:            At:                      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015572	100		Dark brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, slightly moist, slightly dense	0.0
	1015573	100		Dark yellowish brown, fine to medium SAND, trace coarse Sand, trace(-) Silt, very moist, moderately loose	0.6
4	1015574	100		As above, wet	0.2
	1015575 1015576	100		Reddish brown, fine SAND, some Silt, little medium to coarse Sand, moderately loose, wet	0.4 0.4
8	1015577	100		Yellowish brown, fine SAND and SILT, trace medium Sand, moderately loose, wet	0.0
	1015578	100		6": As above; 17": Olive grey, varved CLAY, wet, stiff	0.1
12	1015579	100		As above	0.2
	1015580	100		As above	0.2
16				Bottom of boring at 15.0'	
20					
24					

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Boring No: NK-SB-15

**Comments:** Borehole backfilled with bentonite chips upon completion.



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# GEOLOGIC BORING LOG

<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 07/02/96 <b>End Date:</b> 07/02/96		<b>Boring ID:</b> <b>NK-SB-16</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours <input type="checkbox"/> <b>Depth:</b> <b>At:</b> Hours <input type="checkbox"/>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1015564	100		Dark brown, medium SAND, with fine Sand, some coarse Sand, little fine Gravel, trace Silt, slightly moist, loose	0.0	
	1015565	100		Yellowish brown, medium SAND, some fine Sand, little coarse Sand, trace(-) fine Gravel, very moist, loose	1.2	
4	1015566	100		As above, wet	1.5	
	1015567	100		As above	1.5	
8	1015568	100		2": As above; 21": Dark olive grey, varved CLAY, little Silt, wet, stiff	2.0	
	1015569	100		As above	1.5	
12	1015570	100		As above	2.5	
	1015571	100		As above	2.5	
16				Bottom of boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

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Boring NK-SB-16



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/2/96 <b>End Date</b> 7/2/96	<b>Boring ID</b>  <b>NK-SB-17</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015503	100		Dark brown, medium SAND, with fine Sand, some coarse Sand, little fine Gravel, trace Silt, slightly moist, loose, roots	0.0
	1015504	100		Dark yellowish brown, fine to medium SAND, little coarse Sand, trace(-) Silt, very moist, loose	0.5
4	1015505 1015506	100		As above, wet	0.0 0.0
	1015507	100		Dark yellowish red, fine SAND, some Silt, little medium Sand, trace(-) coarse Sand, wet, moderately loose	0.5
8	1015508	100		As above	0.0
	1015509	100		6": As above; 18": Dark olive grey, varved CLAY, little Silt, wet, stiff	0.0
12	1015510	100		As above	1.0
	1015563	100		As above	0.5
16				Bottom of boring at 15.0'	
20					
24					

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Boring No: NK-SB-17

**Comments:** Borehole backfilled with bentonite chips upon completion.



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/9/96 <b>End Date</b> 7/9/96	<b>Boring ID</b>  <b>NK-SB-18</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015589 1015590	100		3": Dark brown/black, fine to medium SAND, with Silt, little coarse Sand, slightly moist, loose, roots; 6": Brown, fine SAND, some Silt, trace medium Sand, moist, loose; 14": Dark brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, very moist, loose	0.8 0.9
4	1015591	100		Light reddish brown, fine SAND and medium SAND, little Silt, trace(-) coarse Sand, wet, loose	0.4
4	1015592	100		Yellowish brown, medium Sand, with fine Sand, little coarse Sand, trace Silt, wet, loose	0.6
8	1015593	100		As above	0.7
8	1015594	100		As above	18.0
12	1015595	100		18": As above; 5": Olive grey, varved CLAY, trace fine Sand/Silt	38.0
12	1015596	100		As above	3.5
16	1015597	100		As above	2.2
16				Bottom of boring at 15.0'	

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Boring NK-SB-18

**Comments:** Borehole backfilled with bentonite chips upon completion.



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# GEOLOGIC BORING LOG

<b>Project:</b> X-430 Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 7/9/96 <b>End Date:</b> 7/9/96		<b>Boring ID:</b> <b>NK-SB-19</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>						
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1015598	100		6": Dark brown, fine SAND, with Silt, little medium Sand, moist, loose, roots; 17": Olive brown, fine SAND, little Silt, trace medium Sand, moist, loose;	2.0	
	1015599	100		Light reddish brown, fine and medium SAND, little coarse Sand, trace Silt, moist, loose	2.2	
4	1015600	100		Light reddish brown, fine SAND, with medium Sand, some Silt, little coarse Sand, trace fine Gravel, wet, loose	3.2	
	1015601	100		Dark yellowish brown, medium SAND, with fine Sand, some coarse Sand, little Silt, wet, loose	1.3	
8	1015602	50		As above	0.2	
	1015603	50		As above	1.3	
12	1015604	100		Olive grey, varved CLAY, trace Silt, trace(-) fine Sand, wet, stiff	1.6	
	1015605	100		As above	1.6	
16				Bottom of boring at 15.0'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion						

UNSAT

Printed On: 1/26/1998

Boring No: NK-SB-19



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/9/96 <b>End Date:</b> 7/9/96	<b>Boring ID</b> <b>NK-SB-20</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015607	100		4": Dark brown/black, fine to medium SAND, with Silt, organics and forest litter; 8": Dark brown, fine to medium SAND, trace organics, moist; 12": Brown, fine to medium SAND, trace Silt, moist	1.0
4	1015608	100		Light reddish brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	3.0
8	1015609	100		Brown, fine to medium SAND, trace coarse Sand, trace Silt, wet, loose	2.5
12	1015610	100		8": As above; 4": Dark brown, SILT, with fine Sand, wet, moderately loose; 12": Reddish brown, fine to medium SAND, some coarse Sand, wet, loose	3.5
16	1015611	80		22": As above; 2": Blackish reddish brown, fine to medium SAND, some coarse Sand, wet, loose	4.0
20	1015612	80		6": Reddish brown, fine to medium SAND, some coarse Sand, wet, loose; 18": Olive grey, varved CLAY, trace fine Sand and Silt	5.0
24	1015613	60		As above	2.5
	1015614	60		As above	1.5
				Bottom of boring at 15.0'	

**Comments:** Borehole backfilled with bentonite chips upon completion.

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Boring NK-SB-20



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

**Project:** X-430 Area  
**LEA Comm No:** 68TR653  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT  
**Start Date:** 7/10/96  
**End Date:** 7/10/96  
**Boring ID:** NK-SB-21

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Large Bore  
**Groundwater Observations:**  
**Depth:** NM **At:** **Hours**   
**At:** **Hours**   
**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015606	100		8": Dark brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, moist, loose, roots; 15": Brown, fine Sand, little medium Sand, trace(+) Silt, trace(-) coarse Sand, moist, loose, hydrocarbon odor	0.7
	1015615	100		Olive brown, fine SAND, with Silt, little medium Sand, trace(-) coarse Sand, very moist, loose	40.0
4	1015616 1015617	80		Light yellow, medium SAND, some fine Sand, little coarse Sand, trace coarse Sand, wet, loose	7.6 6.4
	1015618	100		Light yellow, medium SAND, some fine Sand, little coarse Sand, trace coarse Sand, wet, loose	12.0
8	1015619	100		Light red, fine SAND, little medium Sand, trace(-) Silt, wet, loose, hydrocarbon odor	12.8
	1015620	100		Yellowish brown, fine SAND, with medium Sand, some coarse Sand, trace fine Gravel, trace(-) Silt, wet, loose	3.0
12	1015621	100		6": As above; 17": Olive grey, varved CLAY, trace Silt, trace(-) fine Sand, wet, stiff	1.7
	1015622	100		As above	1.1
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/26/1998  
 Boring No: NK-SB-21

**Comments:** Borehole backfilled with bentonite chips upon completion.



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/10/96 <b>End Date</b> 7/10/96	<b>Boring ID</b>  <b>NK-SB-22</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015623	100		8": Dark brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, moist, loose, roots; 13": Dark yellowish brown, fine to medium SAND, some coarse Sand, trace Silt, moist, loose	0.0
	1015624	80		As above	0.0
4	1015625	100		As above, wet	0.0
	1015626	100		Yellowish red medium SAND, with fine Sand, some coarse Sand, little Silt, trace(-) fine Gravel, wet, loose	0.0
8	1015627	50		As above	0.4
	1015628	80		Dark yellowish brown, medium SAND, with coarse Sand, some fine Sand, little fine Gravel, trace(-) Silt, wet, loose	2.8
12	1015529	100		6": As above; 17": Olive grey, varved CLAY, trace Silt, trace(-) fine SAND, wet, stiff	2.5
	1015630	100		As above	1.7
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring NK-SB-22



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/10/96 <b>End Date</b> 7/10/96	<b>Boring ID</b>  <b>NK-SB-23</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015631	100		6": Dark brown, fine SAND, little Silt, trace medium Sand, moist, loose, roots; 17": Dark yellowish, fine to medium SAND, some coarse Sand, trace Silt, moist, loose	0.0
	1015632	80		As above	0.7
4	1015633	100		Light reddish brown, fine SAND, little Silt, trace medium Sand, trace(-) coarse Sand, wet, loose	7.2
	1015634	60		Yellowish brown, medium SAND, with fine Sand, some coarse Sand, trace fine Gravel, trace(-) Silt, wet, loose	0.2
8	1015635	50		Dark yellowish brown, fine SAND with Silt, some medium Sand, little coarse Sand, wet, loose	0.5
	1015636	100		As above	1.1
12	1015637	100		6": As above; 17": Olive grey, varved CLAY, trace Silt, trace(-) fine Sand, wet, stiff	0.1
	1015638	100		As above	0.8
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-23



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area <b>LEA Comm No:</b> 68TR653 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/11/96 <b>End Date</b> 7/11/96	<b>Boring ID</b>  <b>NK-SB-24</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015648	100		Dark brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, moist, loose	0.0
	1015649	100		Light greyish brown, fine to medium SAND, some coarse Sand, little Silt, loose, very moist	18.0
4	1015650	100		As above, wet	15.0
	1015651	100		10": As above; 3": Reddish brown, fine SAND and SILT, slightly stiff, wet; 10": Dark yellowish brown, medium SAND, with fine Sand, some coarse Sand, little fine Gravel, trace(-) Silt, loose, wet	13.0
8	1015652	100		Dark reddish brown, fine to medium SAND, some coarse Sand, little Silt, trace(-) fine Gravel, loose, wet	1.1
	1015653	35		8": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, stiff, wet	1.0
12	1015654	100		As above	1.1
	1015655	100		As above	1.4
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998  
Boring NK-SB-24



# GEOLOGIC BORING LOG

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/16/96 <b>End Date</b> 7/16/96	<b>Boring ID</b>  <b>NK-SB-26</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016016	90		12": Black, fine SAND, some medium Sand, little Silt, trace coarse Sand, moist, loose, organics/root fragments; 11": Light reddish brown, fine to medium SAND, little medium Sand, trace(+) Silt, trace(-) coarse Sand, moist, loose	1.8
	1016017 1016018	90		Light yellowish brown, fine to medium SAND, some Silt, trace(+) coarse Sand, wet ( $\approx 3.0$ ), loose	5.4 5.9
4	1016019	100		As above	5.7
	1016020	100		Dark yellowish brown, fine SAND, some Silt, little medium Sand, trace coarse Sand, trace(-) fine Gravel, wet, loose	5.2
8	1016021	100		Olive brown, CLAY (varved), with fine Sand, trace Silt, stiff, wet	2.5
	1016022	100		Olive gray, varved CLAY, trace Silt, trace(-) fine Sand, stiff, wet	5.1
12	1016023	100		As above	1.8
	1016024	100		As above	1.2
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
  
Boring No: NK-SB-26



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/15/96 <b>End Date:</b> 7/15/96	<b>Boring ID:</b> <b>NK-SB-27</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours $\frac{1}{4}$ " <b>Depth:</b> <b>At:</b> Hours $\frac{1}{4}$ "	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016000	100		8": Black, fine SAND and SILT, some medium Sand, trace coarse Sand, moist, loose, organics; 15": Light reddish brown, fine SAND and medium SAND, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, very moist, loose	5.2
	1016001	100		As above, strong hydrocarbon odor, wet at ~3.0'	59.0
4	1016002	70		Yellowish brown, fine SAND, with medium Sand, some coarse Sand, little Silt, trace(-) fine Gravel, loose, wet	2.7
	1016003	70		As above	2.9
8	1016004	100		Olive brown, CLAY (varved), little Silt, trace fine Sand, stiff, wet.	2.1
	1016005	100		Olive gray, varved CLAY, trace(+) Silt, trace(-) fine Sand, stiff, wet	3.4
12	1016006	100		As above	2.4
	1016007	100		As above	2.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-27



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/15/96 <b>End Date</b> 7/15/96	<b>Boring ID</b>  <b>NK-SB-28</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015991	100		7": Black, fine SAND and SILT, some medium Sand, trace coarse Sand, slightly moist, loose; 16": Light reddish brown, fine SAND and medium SAND, some coarse Sand, trace Silt, trace(-) fine Gravel, very moist, loose	5.0
	1015992 1015993	100		As above, hydrocarbon odor, wet at ≈3.0'	55.0 51.0
4	1015994	80		Yellowish brown, fine SAND and medium SAND, some coarse Sand, trace Silt, trace(-) fine Gravel, wet, loose	3.6
	1015995	80		As above	3.9
8	1015996	95		Olive brown, varved CLAY, some Silt, little fine Sand, stiff, wet	2.0
	1015997	95		Olive gray, CLAY, trace(+) Silt, trace (-) fine SAND, stiff, wet	1.9
12	1015998	100		As above	2.1
	1015999	100		As above	2.2
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-28



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 07/15/96 <b>End Date</b> 7/15/96	<b>Boring ID</b> NK-SB-29
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016008	100		7": Black, fine SAND, with Silt, some medium Sand, trace(-) coarse Sand, moist, loose, organic material; 16": Light reddish brown, fine SAND and medium SAND, some coarse Sand, trace(+) Silt, trace(-) fine Gravel, moist, loose As above, strong hydrocarbon odor, wet at ≈3.0'	4.4
	1016009	100			35.0
4	1016010	100		Yellowish brown, fine SAND, with medium Sand, some coarse Sand, little Silt, trace(-) fine Gravel, loose, wet	7.1
	1016011	100		As above	11.0
8	1016012	85		Olive brown, CLAY (varved), some Silt, trace fine Sand, moderately stiff, wet	3.5
	1016013	85		Olive grey, CLAY (varved), trace Silt, trace(-) fine Sand, stiff, wet	1.7
12	1016014	100		As above	2.0
	1016015	100		As above	2.1
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring NK-SB-29



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/16/96 <b>End Date</b> 7/16/96	<b>Boring ID</b> NK-SB-30
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016026	100		10": Black, fine SAND and SILT, little medium Sand, trace coarse Sand, moist, loose, root fragments; 13": Light greyish brown, fine SAND, trace(+) Silt, trace(-) medium Sand, moist, loose	0.8
	1016027	100		As above	2.0
4	1016028	100		10": Dark yellow, medium SAND, with fine Sand, trace(+) Silt, trace(-) coarse Sand, wet at ≈ 4.5'; 13": Dark olive grey, fine SAND, some Silt, loose, wet	2.2
	1016029	100		Grey, fine SAND, with Silt, some medium Sand, little coarse Sand, trace (+) coarse Sand, trace (-) fine Gravel, loose, wet	1000+
8	1016030	100		As above	15.0
	1016031	100		13": As above; 12": Olive grey, varved CLAY, trace Silt, trace (-) fine Sand, stiff, wet	12.0
12	1016032	100		As above	5.7
	1016033	100		As above	3.1
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-30



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/17/96 <b>End Date:</b> 7/17/96	<b>Boring ID:</b> <b>NK-SB-31</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016043	100		4": Black, fine SAND and SILT, little medium Sand, trace coarse Sand, moist, slightly dense, organic, root fragments; 19": Dark yellow, fine SAND, some Silt, trace (-) medium Sand, moist, loose	5.5
	1016044	100		Light olive brown, fine SAND, some Silt, trace medium Sand, wet at 3.5', loose	5.1
4	1016045	80		Light olive brown, fine to medium SAND, some Silt, trace(+) coarse Sand, wet, loose	4.6
	1016046 1016047	80		Olive grey, fine to medium SAND, little Silt, trace coarse Sand, wet, loose.	4.7 4.8
8	1016048	100		10": As above; 13": Brownish grey, fine SAND, with Silt, trace medium Sand, wet, loose	5.4
	1016049	100		10": As above; 13": Olive grey, varved CLAY, trace Silt, trace(-) fine Sand, wet, stiff	5.6
12	1016050	100		As above	5.1
	1016051	100		As above	4.9
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/23/1998

Boring NK-SB-31

**Comments:** Borehole backfilled with bentonite chips upon completion.



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Silver Lane Pickle Add. In. <b>LEA Comm No:</b> 68V7039 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 2/19/97 <b>End Date</b> 2/19/97	<b>Boring ID</b>  <b>NA-SB-32</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> Jon Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026357	100		Top 20": Brown, fine SAND, Top 6": Frozen, Bottom 14": moist, trace organic matter, loose; Bottom 4": Red brown, coarse to fine SAND, trace Gravel and fill material, moist, loose	0
	1026358	100		Orange to yellow brown, fine SAND, trace(+) medium Sand, moist, loose	0
4	1026359	75		Top 10": Orange to grey brown, fine SAND, trace(+) medium Sand, moist, loose; Bottom 8": Grey, medium to fine SAND, trace(-) coarse Sand, moist, loose	0
	1026360 1026361	75		Top 8": As above, bottom 8" (wet); Middle 6": Orange brown, fine SAND, iron staining present, wet; Bottom 4": Dark brown to gray brown, fine to medium SAND, wet, organic odor	5
8	1026362	62		Top 10": Grey, fine SAND, trace(+) medium Sand, wet, loose; Bottom 5": Grey, fine SAND, wet, loose	0
	1026363	62		Top 8": Grey, fine SAND, grading to dark grey, fine SAND, wet, loose (heavy organic odor); Bottom 7": Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	4
12	1026364	100		As above, bottom 7"	0
	1026365	100		Top 20": As above; Bottom 4": Grey, fine SAND, trace(-) medium Sand, wet, loose	0
16				Bottom of boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite upon completion.

Printed On: 1/21/1998

Boring No: NA-SB-32



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/17/96 <b>End Date:</b> 7/17/96	<b>Boring ID:</b> <b>NK-SB-33</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016052	100		3": Black, fine SAND and SILT, little medium Sand, trace coarse Sand, moist, slightly dense; 20": Reddish brown, fine SAND, with Silt, trace(-) medium Sand, moist, loose	2.0
	1016053	100		Yellowish brown, fine to medium SAND, little Silt, trace coarse Sand, wet at 3.5', loose	1.9
4	1016054	100		Dark yellow, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	2.6
	1016055	100		Olive grey, fine SAND, with Silt, trace medium Sand, wet, slightly loose	5.7
8	1016056	100		As above	4.3
	1016057	100		10": As above; 13": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, wet, stiff	2.1
12	1016058	100		As above	1.7
	1016059	100		As above	1.9
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-33



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/18/96 <b>End Date</b> 7/18/96	<b>Boring ID</b>  <b>NK-SB-34</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016070	100		4": Dark brown/black, fine SAND, some Silt, little medium Sand, trace coarse Sand, slightly loose, moist; 19": Yellowish grey, fine SAND and medium SAND, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, moist	1.2
	1016071	100		As Above, wet at 3.5'	1.0
4	1016072 1016073	90		Olive brown, fine SAND and SILT, little medium Sand, trace(-) coarse Sand, wet, loose	3.2 3.1
	1016074	90		As Above	3.3
8	1016075	100		18": As Above; 5": Olive grey, varved CLAY, trace(+) Silt, trace (-) fine Sand, wet, stiff	0.8
	1016076	100		As Above	2.2
12	1016077	100		As Above	2.0
	1016078	100		As Above	1.7
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring No: NK-SB-34



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/17/96 <b>End Date:</b> 7/17/96	<b>Boring ID:</b> <b>NK-SB-35</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hour:</b> <input type="checkbox"/> <b>Depth:</b> <b>At:</b> <b>Hours:</b> <input type="checkbox"/>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016060	100		Light brown, fine SAND, little Silt, trace medium Sand, moist, loose	2.8
	1016061	100		Olive grey, fine SAND, little Silt, trace medium Sand, moist, loose	2.4
4	1016062	100		As Above, wet	7.1
	1016063	100		As Above	7.0
8	1016064	100		As Above	4.3
	1016065	100		12": As Above; 11": Olive grey, varved CLAY, trace Silt, trace(-) fine Sand, wet, stiff	2.7
12	1016066	100		As Above	1.9
	1016067	100		As Above	1.9
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-35



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/22/96 <b>End Date</b> 7/22/96	<b>Boring ID</b>  <b>NK-SB-36</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016123	90		3": Dark brown/black, fine SAND with Silt, trace medium Sand, moist, slightly loose, root fragments; 17": Yellowish brown, fine SAND, some Silt, moist, loose	3.0
	1016124	90		17": As Above, very moist; 3": Light grey, fine SAND, some medium Sand, trace(+) coarse sand, trace(-) Silt, very moist, loose	1.8
4	1016125	60		Light reddish grey, medium SAND, some fine Sand, little coarse Sand, trace(-) Silt, wet, loose	3.0
	1016126	60		10": As Above; 4": Reddish brown, fine to medium SAND, with Silt, little coarse Sand, trace(-) fine Gravel, wet, loose	11.0
8	1016127	60		Olive brown, fine to medium SAND with Silt, little coarse Sand, trace(-) fine Gravel, wet, loose	3.8
	1016128	60		Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, wet, stiff	2.1
12	1016129	100		As Above	2.0
	1016130	100		As Above	1.9
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-36



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/22/96 <b>End Date</b> 7/22/96	<b>Boring ID</b>  <b>NK-SB-37</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016114	100		5": Dark brownish grey, fine SAND and SILT, trace medium Sand, moist, slightly dense, root fragments; 18": Yellowish brown, fine SAND, little medium Sand, trace Silt, moist, loose	0.4
	1016115	100		Light, fine SAND, trace(+) Silt, trace(-) medium Sand, very moist, loose (dark yellow banded areas from 17" to 20")	1.8
4	1016116 1016117	90		4": As Above, wet; 5": Dark olive brown, fine SAND and SILT, trace(-) medium Sand, wet, slightly loose; 11": Light grey, fine to medium SAND, little coarse Sand, trace Silt, wet loose	3.3 4.0
	1016118	90		Olive brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, fine Gravel, wet, loose	24.0
8	1016119	25		3": As Above; 3": Brown, fine SAND and SILT, little medium Sand, trace(-) coarse Sand, wet, slightly loose	6.2
	1016120	25		3": As Above; 3": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, wet, stiff	5.1
12	1016121	90		As Above	4.7
	1016122	90		As Above	4.3
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-37



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/22/96 <b>End Date</b> 7/22/96	<b>Boring ID</b>  <b>NK-SB-38</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hour</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Klapheke <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Eastings:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016131	100		9": Dark brown, fine SAND and SILT, some medium Sand, moist, slightly loose, root fragments; 9": Light brown, fine SAND, some Silt, trace medium Sand, moist, slightly dense;	3.9
	1016132	100		5": Dark brown/black, fine SAND and SILT, some medium Sand, moist, loose	3.2
4	1016320	60		Yellowish brown, fine SAND, little medium Sand, trace Silt, very moist, loose	32.0
	1016321	60		Dark olive grey, fine SAND, with Silt, little medium Sand, wet, moderately loose	1000+
8	1016322	60		Light reddish brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	250
	1016323	60		As Above	68.0
12				No Recovery	
				No Recovery	
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998

Boring NK-SB-38



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 7/19/96 <b>End Date:</b> 7/19/96	<b>Boring ID:</b> <b>NK-SB-39</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016105	100		Dark brown, black, fine SAND, some medium Sand and Silt, trace(-) medium Sand, moist, loose, root fragments	2.5
	1016106	100		8": As Above; 15": Dark yellowish grey, fine SAND, trace medium Sand, trace(+) Silt, wet, loose	0.8
4	1016107	100		Light pinkish grey, fine SAND, trace medium Sand, trace(-) Silt, wet, loose	7.4
	1016108	100		5": As Above; 18": Brown, fine Sand, with Silt, trace medium Sand, wet, loose	110.0
8	1016109	100		20": Olive brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, fine Gravel, wet, loose; 3": Olive grey, fine SAND, little medium Sand, trace(+) Silt, wet, loose	38.0
	1016110	100		10": As Above; 13": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, wet, stiff	7.1
12	1016111	100		As Above	1.9
	1016112	100		As Above	1.2
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998

Boring No: NK-SB-39



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 7/19/96 <b>End Date</b> 7/19/96	<b>Boring ID</b>  <b>NK-SB-40</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016088	100		Dark brown/black, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	0.9
	1016089 1016090	100		10": As Above; 13": Yellowish grey, fine SAND, trace medium Sand, trace Silt, wet, loose	2.6 2.5
4	1016091	100		Pinkish grey, fine SAND, trace medium Sand, trace(-) Silt, wet, loose	2.0
	1016092	100		7": As Above; 5": Pinkish grey, medium to coarse SAND, little fine Sand, trace Silt, wet, loose; 11": Brown, fine SAND, with Silt, trace medium Sand, wet, loose	43.0
8	1016093	100		19": Olive brown, medium SAND, some fine Sand, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose; 4": Olive grey, fine SAND, little medium Sand, trace Silt, wet, slightly loose	4.0
	1016094	100		6": As Above; 17": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, wet, stiff	2.4
12	1016095	100		As Above	2.0
	1016096	100		As Above	1.8
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-40



# GEOLOGIC BORING LOG

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT		<b>Start Date:</b> 7/19/96 <b>End Date:</b> 7/19/96		<b>Boring ID</b> <b>NK-SB-41</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>		
<b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		DRAFT			

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016097	100		Dark brown/black, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	2.9
	1016098	100		6": As Above; 17": Yellowish grey, fine SAND, trace(-) medium Sand, trace(-) Silt, wet, loose	0.8
4	1016099	100		Brownish (pinkish) grey, fine SAND, trace medium Sand, trace(-) Silt, wet, loose	2.6
	1016100	100		Olive grey, medium SAND, some fine Sand, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose	7.1
8	1016101	100		As Above	7.4
	1016102	100		13": As Above; 10": Olive grey, varved CLAY, trace(+) Silt, trace(-) fine Sand, wet, stiff	2.5
12	1016103	100		As Above	1.7
	1016104	100		As Above	1.4
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-41



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-314 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/12/96 <b>End Date:</b> 8/12/96	<b>Boring ID:</b> <b>NK-SB-43</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017115	100		Reddish brown, fine SAND and SILT, trace fine Gravel, moist, loose	0.0
	1017116	100		Light brown, fine SAND, little Silt, moist, loose	0.0
4	1017117 1017118	100		Light reddish brown, fine SAND, trace(+) medium Sand, trace(-) Silt, moist, loose	0.0 0.1
	1017119	100		Light greyish brown, fine SAND, little Silt, moist, loose	3.0
8	1017120	50		As above, (wet at 9.5' to 10.0')	0.0
	1017121	50		Olive brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	0.0
12	1017122	50		As above	0.0
	1017123	50		As above	0.0
16				Bottom of boring at 15.0' Note: Olive grey, varved CLAY, trace Silt, wet, stiff, found at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998

Boring NK-SB-43



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-314 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/12/96 <b>End Date:</b> 8/12/96	<b>Boring ID</b>  <b>NK-SB-44</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\nabla$ Depth:      At:      Hours $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017124			Light reddish brown, fine SAND and SILT, moist, loose	0.0
	1017125			Yellowish brown, fine SAND, with Silt, moist, loose	0.0
4	1017126			As above	0.0
	1017127			Light greyish brown, fine SAND, little medium Sand, trace Silt, moist, loose	0.4
8	1017128			Greyish brown, medium SAND, with fine Sand, some coarse Sand, trace Silt, wet at 9.5' - 10.0', loose	0.0
	1017129			As above, wet	0.0
12	1017130			As above	0.0
	1017131			As above	0.0
16				Bottom of boring at 15.0' Note: Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring No: NK-SB-44



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-314 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/12/96 <b>End Date:</b> 8/12/96	<b>Boring ID:</b> <b>NK-SB-45</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017132	100		Light reddish brown, fine SAND and SILT, trace fine Gravel, moist, loose	0.0
	1017133	100		Light brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
4	1017134	100		As above	0.0
	1017135	100		Light greyish brown, fine SAND, little medium sand, trace Silt, moist, loose	0.0
8	1017136	100		Greyish brown, medium SAND, with fine Sand, some coarse Sand, trace Silt, wet at ≈9.5' - 10.0'	0.0
	1017137	100		As above	0.0
12	1017138	100		As above	0.0
	1017139	100		As above	0.0
16				Bottom of boring at 15.0' Note: Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-45



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-314 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/13/96 <b>End Date:</b> 8/13/96	<b>Boring ID:</b> <b>NK-SB-46</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017141	100		4": Riprap layer; 19": Dark reddish brown/grey fine to medium SAND, some Silt, little coarse Sand, trace fine Gravel, moist, loose	0.0
	1017142	100		Olive brown, fine SAND and SILT, trace medium Sand, moist, loose	0.0
4	1017143	100		Light olive brown, fine SAND, little Silt, moist, loose	0.0
	1017144	100		Brown, fine SAND, some Silt, little medium Sand, moist, loose	0.3
8	1017145	100		As above	0.1
	1017146	100		Dark yellowish brown, fine to medium SAND, with coarse Sand, trace fine Gravel, wet, loose	0.0
12	1017147	50		As above	0.0
	1017148	50		As above	0.0
16				Bottom of boring at 15.0' Note: Olive grey, varved CLAY, trace Silt, wet, stiff at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-46



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-312 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/13/96 <b>End Date:</b> 8/13/96	<b>Boring ID:</b> <b>NK-SB-47</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017149	100		Light reddish brown, fine SAND, with Silt, moist, loose	1.3
	1017150	100		Light reddish brown, medium SAND, with fine Sand, some Silt, moist, loose	1.0
4	1017151	100		Light yellowish grey, medium SAND, with fine Sand, some Silt, moist, loose	1.1
	1017152 1017153	100		Grey, fine to medium SAND, some coarse Sand, little Silt, wet, loose	0.7
8	1017154	100		As above	0.1
	1017155	100		Olive grey, varved CLAY, little Silt, wet, stiff	0.0
12	1017156	100		As above	0.0
	1017157	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-47

**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> X-312 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/14/96 <b>End Date:</b> 8/14/96	<b>Boring ID:</b> <b>NK-SB-48</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours <b>At:</b> Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017158	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose, root fragments	0.2
	1017159	100		As above	0.1
4	1017160	100		As above	0.1
	1017161	100		Greyish brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.1
8	1017162	100		Greyish brown, medium to coarse SAND, some fine Sand, trace Silt, wet, loose	0.2
	1017163	100		Grey, fine SAND, trace Silt, wet, loose	0.1
12	1017164	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1017165	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring No: NK-SB-48



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-312 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 8/14/96 <b>End Date</b> 8/14/96	<b>Boring ID</b>  <b>NK-SB-49</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017168	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose, root fragments, trace fine Gravel (rip rap)	0.3
	1017169	100		As above	0.0
4	1017170	75		As above	11.0
	1017171	75		As above	70.0
8	1017172	100		Brownish, grey, fine to medium SAND, some coarse Sand, trace Silt, wet, loose, petroleum odor	190
	1017173	100		As above, petroleum odor	30.0
12	1017174	100		Olive grey, varved CLAY, trace Silt, wet, stiff	2.0
	1017175	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-49



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-312 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 8/14/96 <b>End Date</b> 8/14/96	<b>Boring ID</b>  <b>NK-SB-50</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017176 1017177	100		Brown, fine SAND, with Silt, trace medium Sand, moist, loose	1.0 0.8
	1017178	100		As above	0.0
4	1017179	10		As above	30.0
	1017180	10		Olive grey, fine SAND, some Silt, wet, loose	50.0
8	1017181	10		Olive grey, varved CLAY, some Silt, trace fine Sand, wet, stiff	0.2
	1017182	10		Olive grey, varved CLAY, trace Silt, wet, stiff	0.1
12	1017183			As above	0.0
	1017184			As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-50



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> North Klondike Soil Piles <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/8/96 <b>End Date:</b> 8/8/96	<b>Boring ID:</b> <b>NK-SB-51</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$		<b>Logged By:</b> F. Postma <b>Drilling Foreman:</b> B. Tomicic <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016789	90		Pale yellow, fine SAND, little medium Sand, loose, moist, Silt inclusions	7.8
	1016790	100		12": As Above; 12": Reddish brown, fine SAND, little Silt, moderately dense, moist	17.3
4	1016791	100		Reddish grey, fine SAND, some Silt, dense, moist to very moist	1.8
	1016792	100		As above	0.0
8				Bottom of Boring at 8'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-51



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> North Klondike Soil Piles <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 8/8/96 <b>End Date</b> 8/8/96	<b>Boring ID</b>  <b>NK-SB-52</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth: NM</b> At: Hours $\nabla$ <b>Depth:</b> At: Hours $\nabla$	<b>Logged By:</b> F. Postma <b>Drilling Foreman:</b> B. Tomicic <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016793	100		Pale yellow, fine SAND, trace medium Sand, trace(-) Silt, loose, moist, brick fragments	0.0
	1016794	100		Yellowish red, fine SAND, little Silt, moderately dense, moist	0.0
4	1016795	100		As above	0.2
	1016796	100		Pale yellow to yellowish olive, fine SAND, little medium Sand, loose, moist, brick fragments	0.0
8				Bottom of Boring at 8'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-52



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/15/96 <b>End Date</b> 10/15/96	<b>Boring ID</b> NK-SB-205
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019283	100		5": Processed stone; 6": Dark brown, fine to medium SAND, little Silt, moist, loose; 13": Strong brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, moist, loose	0.1
	1019284	100		As above	0.1
4	1019285	50		As above, very moist	0.1
	1019286	50		As above, wet	0.0
8	1019287	100		18": As above; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1019288	100		As above	0.0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-205



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/15/96 <b>End Date</b> 10/15/96	<b>Boring ID</b>  <b>NK-SB-206</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hour</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019289	100		5": Processed stone; 3": Dark brown, fine SAND, with Silt, trace medium Sand, moist, slightly stiff; 16": Strong brown, fine to medium SAND, trace Silt, moist, loose	0.0
	1019290	100		As above	0.0
4	1019291	50		Strong brown, fine SAND, little Silt, very moist, loose	3.3
	1019292	50		As above, wet	2.5
8	1019293	100		18": As above; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	
	1019294	100		As above	
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-206



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/15/96 <b>End Date</b> 10/15/96	<b>Boring ID</b>  <b>NK-SB-207</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> $\frac{17}{25}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{17}{25}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019295	100		4": Cement; 6": Subbase; 14": Olive brown, fine to medium SAND, trace Silt, moist, loose	0.9
	1019296	100		As above	0.1
4	1019297	100		Strong brown, fine SAND, little Silt, trace medium Sand, very moist, loose	0.9
	1019298	100		As above, wet	0.2
8	1019299	100		10": As above; 14": Olive grey, varved CLAY, trace Silt, wet, stiff	0.1
	1019300	100		As above	0.0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-207



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/16/96 <b>End Date</b> 10/16/96	<b>Boring ID</b>  <b>NK-SB-208</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> Hours <b>Depth:</b> <b>At:</b> Hours	<b>Logged By:</b> L Bianchi <b>Drilling Foreman:</b> John Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019303	100		10": Brown, fine SAND and SILT, little medium Sand, trace coarse Sand, moist, loose, root fragments; 14": Strong brown, fine SAND, with medium Sand, trace Silt, moist, loose	0.0
	1019304	100		As above	0.2
4	1019305	100		As above, wet	0.7
	1019306	100		As above	2.0
8	1019307	100		7": As above; 17": Olive grey, varved CLAY, trace Silt, stiff, wet	0.2
	1019308	100		As above	0.2
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring No: NK-SB-208



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/16/96 <b>End Date</b> 10/16/96	<b>Boring ID</b> NK-SB-209
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L Bianchi <b>Drilling Foreman:</b> Jon Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019309	100		12": Dark brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments; 12": Strong brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.0
	1019310	100		As above	0.1
4	1019311	100		As above, wet	0.2
	1019312 1019313	100		As above	1.1
8	1019314	100		5": As above; 19": Olive grey, varved CLAY, trace Silt, wet, stiff.	0.0
	1019315	100		As above	0.1
12	Bottom of boring at 12.0'				
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-209



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/16/96 <b>End Date</b> 10/16/96	<b>Boring ID</b>  <b>NK-SB-210</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L Bianchi <b>Drilling Foreman:</b> Jon Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019316	100		7": Dark brown, fine SAND and SILT, moist, loose, root fragments; 17": Strong brown, fine SAND, some Silt, little medium Sand, very moist, loose	0.0
	1019317	100		Strong brown, fine SAND, little Silt, wet at ≈ 3.5', loose	0.1
4	1019318	100		As above	0.0
	1019319	100		18": As above; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	0.2
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-210



**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/17/96 <b>End Date</b> 10/17/96	<b>Boring ID</b>  <b>NK-SB-211</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> NM <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> L Bianchi <b>Drilling Foreman:</b> John Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019322	100		7": Dark brown, fine SAND and SILT, little medium Sand, moist, slightly dense, rip rap; 17": Strong brown, fine to medium SAND, little Silt, moist, loose	0.0
	1019323	100		Strong brown, fine SAND and SILT, trace(-) medium Sand, moist, slightly stiff	0.1
4	1019324	100		As above	30.0
	1019325 1019326	100		As above, wet	0.7
8	1019327	100		10": As above; 14": Olive brown, fine to medium SAND, little Silt, trace(-) coarse Sand, wet, loose	8.8
	1019328	100		3": As above; 21" Olive grey, varved CLAY, trace Silt, wet, stiff	4.9
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring # NK-SB-211



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut. 06062. Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/17/96 <b>End Date</b> 10/17/96	<b>Boring ID</b>  <b>NK-SB-212</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L Bianchi <b>Drilling Foreman:</b> John Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019329	100		3": Cored concrete; 7": Subbase; 14": Strong brown, fine to medium SAND, little Silt, moist, loose	0.1
	1019330	100		Strong brown, fine SAND and SILT, very moist, slightly stiff	0.1
4	1019331	100		As above	6.6
	1019332	100		As above, wet	0.1
8	1019333	100		15": As above; 9": Olive brown, fine SAND, with Silt, little medium Sand, wet, loose	1.6
	1019334	100		5": As above; 19": Olive grey, varved CLAY, trace Silt, wet, stiff	0.4
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-212



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/17/96 <b>End Date</b> 10/17/96	<b>Boring ID</b>  <b>NK-SB-213</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L Bianchi <b>Drilling Foreman:</b> John Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019335	100		9": Dark brown, fine SAND and SILT, some medium Sand, moist, slightly dense, rip rap; 15": Strong brown, fine to medium SAND, some Silt, moist, loose	0.0
	1019336	100		Strong brown, fine SAND, with Silt, some medium Sand, trace(-) coarse Sand, moist, loose	0.0
4	1019337	100		As above	0.0
	1019338	100		As above, wet	64.0
8	1019339	100		5": As above; 19": Olive grey, varved CLAY, trace Silt, wet, stiff	1.8
	1019340	100		As above	0.2
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-213



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/30/96 <b>End Date</b> 10/30/96	<b>Boring ID</b>  <b>NK-SB-214</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020828	100		Dark brown, fine SAND, little Silt, trace(+) medium Sand, moist, loose, root fragments	0.0
	1020829	100		2": As above; 4": Black, fine SAND and SILT, trace medium Sand, very moist, loose; 17": Grey, fine GRAVEL*, little fine SAND, moist, very loose	0.0
4	1020830	100		6": As above; 17": Brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.0
	1020831	100		18": As above; 5": Greyish brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, wet, loose	0.6
8	1020832	100		4": As above; 4": Brown, medium to coarse SAND, some fine Sand, little fine Gravel, trace Silt, wet, loose; 15": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1020833	100		As above	0.0
12	1020834	100		As above	0.0
	1020835	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/23/1998  
Boring No: NK-SB-214

**Comments:** Borehole backfilled with bentonite chips upon completion.



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut. 06062. Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Soil Piles Additional Investigation <b>LEA Comm No:</b> 68VC620 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/30/96 <b>End Date</b> 10/30/96	<b>Boring ID</b>  <b>NK-SB-215</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hour</b> <b>↓</b> <b>Depth:</b> <b>At:</b> <b>Hours</b> <b>↓</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020837	100		Dark brown, fine to medium SAND and SILT, trace(-) fine Gravel, moist, loose, root fragments	0.0
	1020838	100		As above	0.0
4	1020839	100		Dark reddish brown, fine to medium SAND, little Silt, moist, loose	1.0
	1020840	100		4": As above; 19": Dark brown, fine SAND and SILT, little medium Sand, wet, loose	0.0
8	1020841	100		Brown, fine to medium SAND, trace Silt, wet, loose	0.3
	1020842	100		Yellowish brown, medium to coarse SAND, some fine Sand, trace Silt, wet, loose	0.1
12	1020843	100		10": Light brown, fine SAND, trace Silt, wet, loose; 13": Fine to medium SAND, little Silt, wet, loose	0.2
	1020844	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion

Printed On: 1/23/1998

Boring NK-SB-215



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Soil Piles Additional Investigation <b>LEA Comm No:</b> 68VC620 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/31/96 <b>End Date</b> 10/31/96	<b>Boring ID</b>  <b>NK-SB-216</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\frac{\text{V}}{\text{H}}$ Depth:      At:      Hours $\frac{\text{V}}{\text{H}}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020847	100		Strong brown, fine to medium SAND, some Silt, moist, loose, root fragments	0.0
	1020848	100		Very dark, greyish brown, fine SAND and SILT, moist, loose, root fragments	0.1
4	1020849 1020850	100		6": As Above; 17": Yellowish brown, fine SAND, some Silt, moist, loose	0.2
	1020851	100		4": As Above; 19": Dark brown/black, fine SAND and SILT, moist, loose, root fragments	0.2
8	1020852	100		Dark yellowish brown, medium SAND and fine SAND, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet at 9-10', loose	0.2
	1020853	100		Dark yellowish brown, medium to coarse SAND, some fine Sand, little fine Gravel, trace Silt, wet, loose	0.6
12	1020854	100		Olive grey, varved CLAY, trace Silt, wet, very stiff	0.2
	1020855	100		As Above	0.3
16				Bottom of Boring at 15.0'	
20					
24					

Printed On: 1/23/1998  
  
Boring No: NK-SB-216

**Comments:** Borehole backfilled with bentonite chips upon completion

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Soil Piles Additional Investigation <b>LEA Comm No:</b> 68VC620 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/31/96 <b>End Date</b> 10/31/96	<b>Boring ID</b>  <b>NK-SB-217</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020856	75		Brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.0
	1020857	75		15": As Above; 2": Black, fine SAND and SILT, moist, slightly loose	0.0
4	1020858	100		12": As Above; 11": Yellowish brown, fine to medium SAND, little Silt, wet, loose	0.0
	1020859	100		10": As Above; 13": Yellowish brown, medium to coarse SAND, some fine Sand, little fine Gravel, trace Silt, wet, loose	54.0
8	1020860	100		As Above	0.2
	1020861	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.3
12	1020862	100		As Above	0.0
	1020863	100		As Above	0.0
16				Bottom of Boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion

Printed On: 1/23/1998

Boring NK-SB-217



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Soil Piles Additional Investigation <b>LEA Comm No:</b> 68VC620 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/31/96 <b>End Date:</b> 10/31/96	<b>Boring ID:</b> <b>NK-SB-218</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1020864	100		Brown, fine SAND, with Silt, trace fine Gravel, moist, loose, root fragments	0.0
	1020865	100		Brown, fine SAND, with Silt, trace fine Gravel, moist, loose	0.0
4	1020866	100		As Above	0.0
	1020867	100		As above, wet	0.0
8	1020868	100		As above	0.0
	1020869	100		15": As above; 8": Brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.0
12	1020870	100		6": As above; 17": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
	1020871	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/23/1998  
Boring No: NK-SB-218

**Comments:** Borehole backfilled with bentonite chips upon completion



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 11/13/96 <b>End Date:</b> 11/13/96	<b>Boring ID</b> <b>NK-SB-222</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021758	100		15": Brownish black, fine SAND with Silt, trace medium Sand, moist, loose; 8": Reddish brown, fine to medium SAND, little Silt, moist, loose	0.0
2	1021759	100		2": As Above; 21": Strong brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
4	1021760	100		Pale brown, fine SAND, little medium Sand, trace Silt, moist, loose	0.0
6				Bottom of Boring at 6.0'	
8					
10					
12					
14					
16					
18					
20					
22					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed on: 1/26/1998

Boring NK-SB-222



**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 11/13/96 <b>End Date:</b> 11/13/96	<b>Boring ID</b> <b>NK-SB-223</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021761	100		Yellowish brown, fine SAND, some Silt, trace medium Sand, moist, loose, riprap	0.0
+	1021762	100		2": As Above; 21": Pale brown, fine SAND, little Silt, moist, loose	0.0
4	1021763	100		5": Brown, fine SAND, with Silt, trace medium Sand, very moist; 18": Pale brown, medium SAND, with fine SAND, little coarse Sand, trace Silt, wet, loose	0.1
+	1021764	100		Grey, medium to coarse SAND, some fine Sand, little Silt, trace fine Gravel, wet, loose	0.1
8	1021765	100		12": Grey, fine SAND, trace(+) Silt, trace(-) medium Sand, wet, loose; 11": Olive grey, varved Clay, trace Silt, wet, stiff	0.0
+				As Above, No sample taken	
12				Bottom of Boring at 12'	
+					
16					
+					
20					
+					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-223



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 11/13/96 <b>End Date</b> 11/13/96	<b>Boring ID</b>  <b>NK-SB-224</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021766	100		Strong brown, fine SAND and SILT, moist, loose	0.0
	1021767	100		4": As Above; 19": Light brownish grey, fine SAND, trace Silt, trace medium Sand, moist, loose	0.0
4	1021768	100		2": As Above; 21": Light grey, fine SAND, trace Silt, trace medium Sand, moist, loose	86.0
	1021769	100		Light grey, medium SAND, with fine Sand, trace Silt, trace coarse Sand, wet, loose	120.0
8	1021770	100		6": As Above; 17": Grey, fine SAND, some Silt, wet, loose	1.0
	1021771	100		19": As Above; 4": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12				Bottom of Boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring NK-SB-224



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 11/14/96 <b>End Date:</b> 11/14/96	<b>Boring ID:</b> <b>NK-SB-225</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth: NM At: Hours</b> <b>Depth: At: Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021774	100		21": Brown, fine SAND, some Silt, trace medium Sand, moist, loose, root fragments; 2": Light yellowish brown, fine SAND, trace Silt, trace medium Sand, moist, loose	0.0
	1021775 1021776	100		20": As Above; 3": Light brownish grey, fine SAND, little Silt, trace medium Sand, very moist, loose	0.0
4	1021777	100		As Above	0.3
	1021778	100		As Above, hydrocarbon odor	61.0
8	1021779	100		Greyish brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose, hydrocarbon odor	65.0
	1021780	100		Light brownish grey, fine SAND, with medium Sand, trace coarse Sand, trace Silt, wet, loose	20.0
12				Bottom of Boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-225



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 11/14/96 <b>End Date</b> 11/14/96	<b>Boring ID</b> <b>NK-SB-226</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021781	100		10": Brown, fine SAND, with Silt, trace medium SAND, moist, loose, riprap from 0-0.5'; 13" Pale brown, fine SAND, little Silt, moist, loose	0.0
	1021782	100		As Above	0.0
4	1021783	100		Very pale brown, fine SAND, trace Silt, moist, very loose	0.4
	1021784	100		As Above, wet	0.0
8	1021785	100		Olive brown, fine SAND with medium Sand, some coarse Sand, little fine Gravel, trace Silt, wet, loose	65.0
	1021786	100		Grey, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	9.0
12				Bottom of Boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-226



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 11/14/96 <b>End Date</b> 11/14/96	<b>Boring ID</b>  <b>NK-SB-227</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021787	100		Strong brown, fine SAND and SILT, trace medium Sand, moist, loose	0.0
2	1021788	100		8": As Above; 15": Yellowish brown, fine SAND, trace medium Sand, trace Silt, moist, very loose	0.0
4	1021789	100		As Above	0.2
6	1021790	100		As Above, wet ≈ 7.5'	0.1
8	1021791	100		Olive brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	2.6
10	1021792	100		10": As Above; 13": Grey, medium SAND, some fine Sand, little coarse Sand, trace Silt, trace fine Gravel, wet, loose	0.2
12				Bottom of Boring at 12.0'	
14					
16					
18					
20					
22					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-227



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area	<b>Start Date</b> 11/14/96	<b>Boring ID</b> NK-SB-228
<b>LEA Comm No:</b> 68VC621	<b>End Date</b> 11/14/96	
<b>Client:</b> Pratt & Whitney		
<b>Location:</b> East Hartford, CT		

<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours:</b> <b>Depth:</b> <b>At:</b> <b>Hours:</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021793	100		4": Black, fine SAND, with Silt, moist, loose, organic; 19": Brown, fine SAND, little Silt, trace medium Sand, moist, very dense, concrete rubble	0.0
	1021794	100		As Above	0.0
4	1021795	100		Greyish brown, fine SAND, little Silt, moist, loose	0.0
	1021796	100		Olive brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.0
8	1021797	100		As Above	0.0
	1021798	100		18": As Above; 5": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12				Bottom of Boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-228



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 11/15/96 <b>End Date</b> 11/15/96	<b>Boring ID</b>  <b>NK-SB-229</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021801	100		2": Asphalt/riprap; 4": Dark brown, fine SAND, with Silt, moist, loose, riprap; 12": Strong brown, fine SAND, little Silt, trace medium Sand, moist, loose; 5": Pale brown, fine SAND and medium SAND, little Silt, trace coarse Sand, moist, loose	0.0
	1021802	100		As Above	0.1
4	1021803	75		Pale brown, fine SAND, little medium Sand, trace Silt, moist, loose	1.0
	1021804	75		As Above	0.0
8	1021805	100		Olive brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	0.5
	1021806	100		10": As Above; 10": Olive brown, fine to medium SAND, some Silt, wet, loose, 3": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12				As Above	
				Bottom of Boring at 13.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-229



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 11/15/96 <b>End Date</b> 11/15/96	<b>Boring ID</b>  <b>NK-SB-230</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1021807	100		Strong brown, fine SAND, some medium Sand, little Silt, trace coarse Sand, moist, loose	0.0
	1021808	100		Light brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.0
4	1021809 1021810	75		Pink, fine SAND, some Silt, moist, loose	0.5
	1021811	75		Yellow, medium to coarse SAND, with fine Sand, trace(+) fine Gravel, trace(-) Silt, moist, loose	0
8	1021812	100		6": Yellowish brown, medium SAND, little coarse Sand, trace fine Sand, trace Silt, wet, loose; 17": Grey, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	0.6
	1021813	100		22": As Above; 3": Dark yellow, medium to coarse SAND, some fine Sand, trace Silt	0.0
12				4": Olive grey, varved CLAY, trace Silt, wet, stiff	
				Bottom of Boring at 12.5'	

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-230



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Invest. X312/314 Area <b>LEA Comm No:</b> 68VC621 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 12/16/96 <b>End Date</b> 12/16/96	<b>Boring ID</b>  <b>NK-SB-231</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> B. Tomicic <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1023647	75		Top 8": Dark brown, fine SAND, trace(-) medium Sand, slightly moist, loose, organics; Bottom 10": Brown, fine SAND, trace(+) medium Sand, slightly moist, loose	0.0
	1023648	100		As Above, trace(-) cobbles	0.0
4		0		No Recovery	
	1023649 1023650	83		Greyish brown, fine SAND, trace(+) cobbles, moist, loose, poorly sorted; wet at 7.5'	0.0 0.0
8	1023651	100		Grey, fine SAND, some(+) medium Sand, wet, loose, poorly sorted, odor, staining	30
	1023652	100		Top 1": As Above, Greyish brown, odor, staining not as apparent; Bottom 1": Brown, fine SAND, wet, loose, poorly sorted	2
12	1023653	100		Olive grey, varved CLAY, wet, dense	0.0
				Bottom of Boring at 13'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-231



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# GEOLOGIC BORING LOG

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<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 01/09/97 <b>End Date:</b> 01/09/97	<b>Boring ID</b> <b>NK-SB-232</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:            At:      Hours	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024465	63		Brown, fine SAND, little medium Sand, trace organics, moist, loose	0
	1024466 1024467	63		Top 12": As Above; Bottom 3": Brown, fine SAND, trace very fine Sand, trace organics, moist, moderately dense	0
4	1024468	75		Top 5": As Above; Middle 2": Brown, coarse to fine SAND, trace organics, wet; Bottom 11": Grey, medium to fine SAND, trace(-) coarse Sand, wet	0
	1024469	63		As Above	2
8	1024470	75		Top 8": As Above; Bottom 10": Grey, CLAY, varved, moist, dense	3
	1024471	75		As Above	4
12	1024472	100		As Above	2
	1024473	100		As Above	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998  
Boring NK-SB-232

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 01/09/97 <b>End Date</b> 01/09/97	<b>Boring ID</b>  <b>NK-SB-233</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:          At:      Hours	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024476	75		Top 10": Brown, fine SAND, trace(-) medium Sand, trace organics and fill material, moist, loose; Bottom 8": Brown, fine to medium SAND, trace organics and fill material, moist, loose	0
	1024477	50		Top 4": As Above; Bottom 8": Brown, fine SAND, trace organics, moist, loose	0
4	1024478	75		Top 10": As Above (wet); Bottom 8": Medium to fine SAND, wet, loose	1
	1024479	75		As Above	4
8	1024480	75		Top 10": As Above; Bottom 8": Grey, CLAY, wet, dense	7
	1024481	75		As Above	0
12	1024482	100		As Above	0
	1024483	100		Top 4": Lense of medium to fine SAND, little Clay, wet, loose; Bottom 20": Grey, CLAY, wet, dense	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No: NK-SB-233



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 01/10/97 <b>End Date</b> 01/10/97	<b>Boring ID</b>  <b>NK-SB-234</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024484	63		Top 3": Topsoil; Middle 6": Brown, fine to medium SAND, trace organics, brick and concrete in sample, moist, loose; Bottom 6": Brown, fine SAND, trace(-) medium Sand, trace organics, moist, loose, trace very fine Sand and Silt	0
	1024485	63		Top 14": As Above; Bottom 1": Grey, SILT and CLAY, moist, dense	0
4	1024486	75		Top 8": Brown, fine SAND, trace(-) medium Sand, moist to wet, trace organics, loose; Bottom 10": Brown, fine SAND, little medium Sand, wet, loose	20.0
	1024487 1024488	75		Top 14": As Above; Bottom 4": Brown, fine SAND, trace(-) medium Sand, wet, loose	2.0
8	1024489	75		Top 6": Brown, medium to fine SAND, wet, loose; Middle 10": Brown, fine SAND, trace(-) medium Sand, wet, loose; Bottom 2": Brown, coarse to fine SAND, wet, iron staining, loose	70
	1024490	75		Grey, CLAY, trace fine to very fine Sand, various wet, moderately dense to dense	5.0
12	1024491	100		As Above	0.0
	1024492	100		As Above	0.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring NK-SB-234



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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 01/10/97 <b>End Date</b> 01/10/97	<b>Boring ID</b>  <b>NK-SB-235</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024493	75		Top 10": Grey, medium to fine SAND, trace Gravel and fill material, moist, loose, trace organics; Bottom 8": Brown, fine to very fine SAND, trace organics, moist, dense, strange odor	20.0
	1024494	75		Top 10": As Above; Bottom 8": Brown, fine SAND, trace medium Sand, moist, dense, 1" lense of grey, very fine Sand and Silt, moist, dense, at bottom of sample	100.0
4	1024495	75		Top 6": Brown, fine SAND, trace(+) medium Sand, wet, loose; Bottom 12": Brown, medium to fine SAND, trace(-) coarse Sand, wet, loose	120.0
	1024496	75		Top 12": As Above; Bottom 6": Brown, fine SAND, trace(-) medium Sand, wet, loose	30.0
8	1024497	75		Brown, fine SAND, trace(+) medium Sand, wet, loose	90.0
	1024498	75		Gray, CLAY, trace(-) fine to very fine Sand, varved, wet, moderately dense	5.0
12	1024499	100		As Above	0
	1024500	100		As Above	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998  
Boring No: NK-SB-235



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/10/97 <b>End Date</b> 1/10/97	<b>Boring ID</b> NK-SB-236
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\frac{17}{\downarrow}$ Depth:            At:                      Hours $\frac{\downarrow}{\downarrow}$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024501	83		Top 6": Asphalt and traprock; Bottom 9": Brown, fine SAND, trace(-) very fine Sand, trace organics, moist, loose	0
	1024502	83		Top 10": Brown, fine to very fine SAND, organics, moist, dense; Bottom 5": Brown, fine SAND, trace(-) medium Sand, moist, loose	0
4	1024503	75		Top 10": As above (wet); Bottom 8": Brown, fine SAND, little medium Sand, wet, loose	15.0
	1024504	75		As above	10.0
8	1024505	83		Top 12": As above; Bottom 8": Gray, CLAY, trace(-) fine Sand, moist, dense	5.0
	1024506	83		As above	2.5
12	1024507	100		As above	0
	1024508	100		As above	0
16				Bottom of boring at 16'	
20					
24					

Printed on: 1/22/1998

Boring # NK-SB-236

**Comments:**



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/13/97 <b>End Date:</b> 1/13/97	<b>Boring ID:</b> <b>NK-SB-237</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024511	50		Top 2": Top soil; Middle 4": Brown, fine SAND, trace(-) coarse Sand and Gravel, moist, loose; Bottom 6": Brown, fine SAND, some Gravel, moist, loose	0
	1024512	50		Brown, fine SAND, trace(-) medium to coarse Sand, trace organics, root material in bottom of sample, moist, loose	0
4	1024513	50		Top 8": Brown, fine SAND, trace(+) medium Sand, trace organics, wet, moderately dense; Bottom 4": Brown, medium to fine SAND, trace organics, wet, loose	30.0
	1024514	50		Brown, medium to fine SAND, wet, loose	3.0
8	1024515 1024516	63		Top 12": As above; Bottom 3": Grey, CLAY, trace(-) fine SAND, moist to wet, dense	3.0
	1024517	63		As above bottom 3"	0
12	1024518	100		As above	0
	1024519	100		As above	0
16				Bottom of boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: NK-SB-237



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/13/97 <b>End Date:</b> 1/13/97	<b>Boring ID</b> <b>NK-SB-238</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024520	75		Top 10": Brown, fine SAND, trace(-) medium Sand, trace organics and backfill, moist, loose; Bottom 8": Brown, fine SAND, very fine Sand, trace organics, moist, dense	0
	1024521	75		Top 10": As Above; Bottom 8": Light brown, fine SAND, moist to wet, loose, VOC, TDH odor	30.0
4	1024522	75		Top 3": As above; Bottom 15": Brown, fine to medium SAND, trace organics, wet, loose, TPH odor	35.0
	1024523	75		Top 2": Grey, fine SAND, little organics, wet, dense, TPH odor; Bottom 16": As above bottom 15"	7.0
8	1024524	21		Top 10": Brown, medium to fine SAND, trace(-) coarse Sand, wet, loose; Bottom 5": Grey, CLAY, trace(-) fine SAND, moist, dense	10.0
	1024525	63		As above bottom 5"	0
12	1024526	100		As above bottom 5"	0
	1024527	100		As above	0
16				Bottom of boring at 16'	

**Comments:**

Printed On: 1/22/1998

Boring NK-SB-238



# GEOLOGIC BORING LOG

**Project:** VCAP X-407 Area Investigation  
**LEA Comm No:** 68VC629  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
1/13/97  
**End Date**  
1/13/97

**Boring ID**  
NK-SB-239

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM **At:** Hours  
**Depth:** At: Hours

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1024528	75		Top 6": Gray, medium to fine SAND, trace Gravel, trace organics, moist, loose; Middle 6": Yellow red, medium to fine SAND, trace coarse Sand and Gravel, moist, dense; Bottom 6": As above top 6"	0
	1024529	75		Top 2": Concrete; Middle 10": Brown, fine SAND, trace(-) medium Sand, trace organics; Bottom 6": Grey-brown, fine to very fine SAND, trace organics, moist, dense	0
4	1024530	75		Top 3": As above bottom 6": Middle 2": Lens brown, medium SAND, trace fine Sand, wet, loose; Bottom 15": Grey, medium to fine SAND, trace organics, wet, loose	0
	1024531	75		Top 10": As above bottom 15"; Middle 3": Grey, fine SAND, trace(-) medium Sand, wet, loose; Bottom 5": As above top 10"	3.0
8	1024532	63		Top 12": Brown, coarse to fine SAND, trace(-) Gravel, wet, loose; Bottom 3": Grey, CLAY, trace(-) fine Sand, wet, dense	7.0
	1024533	63		As above bottom 3"	0
12	1024534	100		As above	0
	1024535	100		As above	0
16				Bottom of boring at 16'	
20					
24					

**Comments:**

Printed On: 1/22/1998

Boring No: NK-SB-239



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

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<b>Project:</b> VCAP X-407 Area Investigation <b>LEA Comm No:</b> 68VC629 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 01/14/97 <b>End Date</b> 01/14/97	<b>Boring ID</b>  <b>NK-SB-240</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0					
	1024538	75		Top 10": Grey, fine SAND, trace(-) medium Sand, moist, trace organics, loose, moist; Bottom 8": Brown, fine SAND, trace(-) medium Sand, trace Gravel and Traprock, moist, loose	0
4	1024539	50		Grey, fine SAND, trace(-) medium Sand, moist, loose	0
	1024540	50		Grey brown, fine to medium SAND, trace(-) coarse Sand, wet, loose	0
8	1024541 1024542	75		Top 10": Grey, fine SAND, wet, moderately dense; Bottom 8" : Grey brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0
	1024543	75		Grey, CLAY, trace(-) fine to very fine Sand, wet, dense	0
12	1024544			As Above	0
	1024545			As Above	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring NK-SB-240



# GEOLOGIC BORING LOG

**Project:** X-194 Additional Investigation  
**LEA Comm No:** 68V7034  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date:** 1/23/97  
**End Date:** 2/23/97

**Boring ID:** NK-SB-241

DRAFT

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NM      **At:**      **Hours:**   
**Depth:**      **At:**      **Hours:**

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025744	83		Top 10": Orange brown, fine SAND, trace (-) medium Sand, moist, loose; Middle 1": Brown, root material, medium to fine SAND, moist, loose; Bottom 9": Orange brown, fine SAND, trace(-) medium Sand, moist	0
	1025745	83		Gray brown, fine SAND, moist to wet, moderately dense	0
4	1025746	83		As above	0
6				Bottom of boring at 6'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-241



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/23/97 <b>End Date</b> 1/23/97	<b>Boring ID</b>  <b>NK-SB-242</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\square}{\square}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\square}{\square}$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025747	83		Top 2": Topsoil; Middle 6": Brown, fine SAND, little organic material, moist, dense; Bottom 12": Grey brown, fine SAND, trace organics, moist, moderately dense	0
	1025748	83		Top 2": As above; Bottom 18": Grey, fine SAND, trace(-) medium Sand, wet, loose	0
4	1025749	83		As above	0
8				Bottom of boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion.

Printed On: 1/26/1998  
Boring NK-SB-242



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/23/97 <b>End Date:</b> 1/23/97	<b>Boring ID:</b> NK-SB-243
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025750	100		Top 2": Topsoil; 3": Orange brown, medium to fine SAND, trace organics, moist, loose; 3": Brown, fine to very fine SAND, some organic matter, moist, dense; Bottom 16": Alternating bands of brown-grey brown, fine SAND, moist, loose	0
	1025751	100		Grey, fine SAND, trace(-) medium Sand, wet, loose	0
4	1025752	83		As above	0
8				Bottom of boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-243



# GEOLOGIC BORING LOG

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<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/23/97 <b>End Date</b> 1/23/97	<b>Boring ID</b>  <b>NK-SB-244</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025753	100		Top 4": Topsoil; Middle 10": Brown, fine to very fine SAND, trace organics, moist, dense; Bottom 10": Grey brown, fine SAND, trace(-) medium Sand, moist, loose	0
	1025754	100		Grey brown, fine SAND, trace medium Sand, wet, loose	0
4	1025755	100		Orange brown, medium to fine SAND, trace coarse Sand, wet, loose	0
				Bottom of boring at 6'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion.

Printed On: 1/23/1998

Boring NK-SB-244



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

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<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/23/97 <b>End Date</b> 1/23/97	<b>Boring ID</b>  <b>NK-SB-245</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth: NM</b> <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025756 1025758	100		Top 6": Orange brown, fine SAND, trace organics, loose; Bottom 18": Brown, fine to very fine SAND, moist, dense	0
4	1025757	100		Grey brown, fine SAND, trace medium Sand, wet, loose	0
4	1025759	100		Orange brown, medium to fine SAND, trace (-) coarse Sand, wet, loose	0
8				Bottom of boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-245



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/23/97 <b>End Date:</b> 1/23/97	<b>Boring ID:</b> <b>NK-SB-246</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025760	83		Top 7": Orange brown, fine SAND, trace organics, loose; Bottom 13": Brown, fine to very fine SAND, moist, dense	0
	1025761	83		Grey brown, fine SAND, trace medium Sand, wet, loose	0
4	1025762	83		Orange brown, medium to fine SAND, trace (+) coarse Sand, wet, loose	0
8				Bottom of boring at 6'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion

Printed On: 6/17/1998

Boring No: SB-246

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/24/97 <b>End Date:</b> 1/24/97	<b>Boring ID:</b> <b>NK-SB-247</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\equiv$	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025763	83		Top 10": Dark brown, fine to very fine SAND, little Silt, trace organics, moist, dense; Bottom 10": Orange brown, fine Sand, moist, moderately dense	0
	1025764	83		Top 16": As above bottom 10"; Bottom 4": Orange, brown, fine SAND, trace(+) medium Sand, moist to wet, loose	0
4	1025765	75		Orange brown, fine to medium SAND, trace coarse Sand, wet, loose	0
	1025766	75		Greenish grey, fine SAND, little medium Sand, wet, loose	0
8	1025767 1025768	100		Top 12": Orange brown, fine to medium SAND, wet, loose; Bottom 12": Grey, CLAY, trace(-) fine to very fine Sand, wet, dense	0
	1025769	100		As above bottom 12"	0
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips and hydrated upon completion.

Printed On: 1/26/1998  
Boring No: NK-SB-247



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/24/97 <b>End Date</b> 1/24/97	<b>Boring ID</b>  <b>NK-SB-248</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025770	75		Top 4": Brown, fine to very fine SAND, trace(-) Silt, trace(+) organics, moist, dense; Bottom 14": Grey, fine SAND, trace organics, moist, dense	0
	1025771	75		Orange brown, fine SAND, trace(-) medium Sand, moist, loose, wet on bottom 3"	0
4	1025772	83		Top 10": As above; Bottom 10": Grey, fine SAND, wet, moderately dense	0
	1025773	83		Top 13": Grey, fine SAND, trace(+) medium Sand, trace(-) coarse Sand, wet, loose; Bottom 7": Grey, fine SAND, wet, dense	0
8	1025774	83		Top 14": As above; Bottom 6": Grey, CLAY, trace (-) fine Sand	0
	1025775	83		As above bottom 6"	0
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998

Boring NK-SB-248

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Additional Investigation <b>LEA Comm No:</b> 68V7034 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/24/97 <b>End Date:</b> 1/24/97	<b>Boring ID:</b> <b>NK-SB-249</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\square}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025776	63		Top 6": Orange brown, fine SAND, iron staining present, moist, loose; Bottom 9": Grey, brown, fine SAND, little medium Sand, moist to wet, loose	0
	1025777	63		As above bottom 9"	0
4	1025778	75		Top 8": Orange brown, fine to medium SAND, trace(+) medium Sand, wet, loose; Bottom 10": Grey, fine SAND, trace(-) medium Sand, wet, moderately dense	0
	1025779	75		Grey, fine SAND, trace(+) medium Sand, wet, loose	0
8	1025780	83		Top 8": Red brown, medium to fine SAND, trace(-) coarse Sand, wet, loose; Bottom 12": Grey, CLAY, trace(-) fine Sand, wet, dense	0
	1025781	83		As above bottom 12"	0
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-249



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

<b>Project:</b> X-410 Drain Pipe Add. Inv. <b>LEA Comm No:</b> 68V7035 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/27/97 <b>End Date</b> 1/27/97	<b>Boring ID</b>  <b>NK-SB-250</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025694	83		Top 6": Bituminous concrete and traprock; Middle 8": Brown to grey brown, fine SAND, trace very fine Sand, frozen, dense; Bottom 6": Orange brown, fine SAND, trace medium Sand, moist, loose	0
	1025695	83		Top 6": As above (bottom 6"); Bottom 14": Orange brown, fine SAND, trace(-) medium Sand, moist to wet (bottom 4"), loose	0
4	1025696 1025697	75		Top 10": Grey fine SAND, trace(-) medium Sand, wet, loose; Bottom 8": Red brown to gray brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0 0
	1025698	75		Top 5": As above bottom 8"; Bottom 13": Olive grey, medium to fine SAND, wet, loose	0
8	1025699	83		Top 12": Orange brown, fine SAND, trace(-) medium Sand, wet, loose; Bottom 8": Grey CLAY (varved), trace(-) fine Sand	0
	1025700	83		As above, bottom 8"	
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring NK-SB-250



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Drain Pipe Add. Inv. <b>LEA Comm No:</b> 68V7035 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/27/97 <b>End Date</b> 1/27/97	<b>Boring ID</b>  <b>NK-SB-251</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025701	75		Top 8": Orange brown, fine SAND, trace(-) medium Sand, moist, loose; Middle 4": Grey, fine SAND, rubble and fill material; Bottom 6": Dark brown, fine SAND, some very fine Sand and Silt, organics, moist, dense	0
4	1025702	75		Top 12": As above bottom 6": Bottom 6": Orange brown, fine SAND, trace(+) very fine Sand, trace organics, moist, dense	0
4	1025703	75		Top 10": Grey, fine SAND, trace(-) medium Sand, wet, loose; Bottom 8": Orange brown, medium to fine SAND, trace(-) coarse Sand, wet, loose	
8	1025704	75		Top 8": As above bottom 8": Bottom 10": Olive grey, medium to fine SAND, wet, loose	
8	1025705	75		As above; bottom 10"	
12	1025706	75		Top 6": As above; Bottom 12": Grey CLAY, trace(-) fine SAND, varved	
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998  
  
Boring No: NK-SB-251



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Drain Pipe Add. Inv. <b>LEA Comm No:</b> 68V7035 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/27/97 <b>End Date</b> 1/27/97	<b>Boring ID</b>  <b>NK-SB-252</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025707	75		Top 8": Dark brown, fine to very fine SAND, trace organics, moist, dense; Bottom 10": Orange, brown, grey to grey brown, fine SAND, trace(-) very fine Sand, moist, dense	
	1025708	75		Top 10": As above bottom 10"; Bottom 8": Grey brown, fine SAND, trace(+) medium Sand, moist, loose	
4	1025709	75		Top 10": As above bottom 8"; Bottom 8": Olive grey, fine SAND, trace(-) coarse Sand, wet, loose	
	1025710	75		As above	
8	1025711	100		Top 14": Orange brown, medium to fine SAND, wet, loose; Bottom 10": Grey, CLAY, trace(-) fine Sand (varved)	
	1025712	100		As above	
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring N  
NK-SB-252



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Drain Pipe Add. Inv. <b>LEA Comm No:</b> 68V7035 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 1/28/97 <b>End Date:</b> 1/28/97	<b>Boring ID:</b> <b>NK-SB-253</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025716	42		Dark brown, fine to very fine SAND, trace organics, fill material (concrete, brick) in sample, moist to frozen top 8" dense	0
	1025717 1025718	42		As above, moist	0
4	1025719	83		Top 15": Grey, fine SAND, trace(+) medium SAND, wet, loose; Bottom 5": Grey, fine SAND, wet, moderately dense	0
	1025720	83		Olive grey, fine to medium SAND, trace(-) coarse Sand, wet, loose, some iron staining present.	0
8	1025721	100		Greenish grey to orange brown, fine to medium SAND, trace coarse Sand, wet, loose	0
	1025722	100		Grey, CLAY, trace(-) fine SAND (varved)	0
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: NK-SB-253



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Drain Pipe Add. Inv. <b>LEA Comm No:</b> 68V7035 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/28/97 <b>End Date</b> 1/28/97	<b>Boring ID</b>  <b>NK-SB-254</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours		<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025723	83		Top 10": Dark brown, fine to very fine SAND, trace organics, wood (ash), moist, dense; Bottom 10": Orange brown, fine SAND, moist, loose	
	1025724	83		Grey, fine SAND, trace(-) medium Sand, wet, loose	
4	1025725	75		Grey, fine SAND, little medium Sand, wet, loose	
	1025726	75		Orange brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	
8	1025727	100		Top 8": As above; Bottom 16": Grey CLAY, trace(-) fine SAND, varved, wet, dense	
	1025728	100		As above, bottom 16"	
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring NK-SB-254



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Drain Pipe Add. Inv. <b>LEA Comm No:</b> 68V7035 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 1/28/97 <b>End Date</b> 1/28/97	<b>Boring ID</b> NK-SB-255
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> Dave Brisso <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1025729	83		Top 8": Dark brown, fine to very fine SAND, trace organics, moist, dense; Bottom 12": Orange brown, fine SAND, trace very fine Sand, moist, loose	0
	1025730	83		Grey, fine SAND, trace very fine Sand, moist to wet, loose	0
4	1025731	83		Top 8": As above; Middle 4": Grey, fine SAND, trace(+) medium Sand, wet, loose; Bottom 8": Grey, fine to medium SAND, trace(+) coarse Sand, wet, loose	0
	1025732	83		Top 15": As above bottom 8": Bottom 5": Grey, fine SAND, trace(-) medium Sand, wet, loose	0
8	1025733	100		Top 12": Grey, medium to fine SAND, trace(+) coarse Sand, wet, loose; Bottom 12": Grey, CLAY, trace(-) fine SAND, varved	0
		100		Gray, CLAY, trace(-) fine Sand, varved	0
12				Bottom of boring at 12'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/21/1998

Boring No: NK-SB-255



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Add. Invest. Oil RA <b>LEA Comm No:</b> 68V7041 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03-04-97 <b>End Date:</b> 03-04-97	<b>Boring ID</b> <b>NK-SB-256</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> DCB/JES <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Eastings:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027078	75		Top 6": Topsoil, trace Traprock; Middle 18": Grey, fine SAND, grading to orange-brown, fine Sand, trace very fine Sand, moist, loose; Bottom 2": Grey, very fine SAND and SILT, trace organics, wet, loose	0
	1027080 1027079	75 75		Top 10": Grey, fine SAND, trace organics, moist, moderately dense (slight TPH odor); Bottom 8": Brown-red-brown, fine SAND, trace(-) medium Sand, moist to wet, loose	3
4	1027081	83		Top 10": As Above bottom 8" (wet); Bottom 8": Orange-brown, fine SAND, wet, loose	0
	1027082	83		Top 4": Iron-stained, medium to fine SAND, wet, loose; Bottom 14": Orange-brown, fine SAND, trace(+) medium Sand, wet, loose	0
8	1027083	83		Top 10": As Above bottom 14"; Bottom 10": Grey, CLAY, trace (-) fine to very fine Sand (varved), wet, moderately dense	0
	1027084	83		20": As Above	0
12				Bottom of Boring at 12.0'	
16					
20					
24					

Comments:

Printed On: 2/2/1998

Boring NK-SB-256



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Add. Invest. Oil RA <b>LEA Comm No:</b> 68V7041 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03-04-97 <b>End Date:</b> 03-04-97	<b>Boring ID:</b> <b>NK-SB-257</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> DCB/JES <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027085	75		Top 4": Topsoil and GRAVEL; Middle 10": Grey, fine SAND, trace very fine Sand, trace organics, moist, moderately dense; Bottom 4": Dark grey, fine to very fine SAND, little Silt, trace organics, wet, dense	0
	1027086	75		Top 8": Grey, fine SAND, trace medium Sand, moist, moderately dense; Bottom 10": Red-brown, fine SAND, trace (+) medium Sand, wet, loose	0
4	1027087	62		Top 8": As Above bottom 10"; Bottom 7": Orange-brown, fine SAND, wet, loose	0
	1027088	62		Iron-stained, medium to fine SAND, wet, loose; Bottom 10": Orange-brown, fine to medium SAND, wet, loose	0
8	1027089	83		Top 10": As Above bottom 10"; Bottom 10": Grey, CLAY, trace fine to very fine Sand (varved), wet, dense	0
	1027090	83		10": As Aove bottom 10"	0
12				Bottom of Boring 12'	
16					
20					
24					

**Comments:**

Printed On: 2/2/1998

Boring No: NK-SB-257



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 add.invest.oil ra <b>LEA Comm No:</b> 68V7041 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03-04-97 <b>End Date:</b> 03-04-97	<b>Boring ID</b> <b>NK-SB-258</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> Hours <b>Depth:</b> <b>At:</b> Hours	<b>Logged By:</b> DCB/JES <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	PID/FID (ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Prim. Grain Size, Sec. Grain Sizes, Moist, Sort, Spher, Angul, Sed Struct, Density, Cohesive	
0	1027091	75		Top 4": Topsoil; Bottom 14": Grey, fine SAND, trace very fine Sand, trace organics, moist, moderately dense	0
	1027092	75		Top 4": Dark green, very fine SAND and SILT, trace organics, moist, moderately dense; Middle 8": Grey, fine SAND, moist, moderately dense; Bottom 6": Red-brown, fine SAND, trace(-) medium Sand, moist to wet	0
4	1027093	75		Top 4": As Above bottom 6"; Bottom 14": Orange-brown, fine SAND, trace(-) medium Sand, wet, loose	0
	1027094	75		Top 4": Iron-stained, fine to medium SAND, wet, loose; Bottom 14": Orange-brown, fine SAND, trace(-) medium SAND, wet, loose	0
8	1027095	83		Top 4": As Above bottom 14"; Bottom 16": Grey, CLAY, trace fine to very fine Sand (varved), wet, dense	0
	1027096	83		20" As Above	0

**Comments:**

Printed On: 8/19/1997

Boring No. NK-SB-258



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 add.invest.oil ra <b>LEA Comm No:</b> 68V7041 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03-04-97 <b>End Date</b> 03-04-97	<b>Boring ID</b>  <b>NK-SB-259</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$	<b>Logged By:</b> DCB/JES <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	PID/FID (ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Prim. Grain Size, Sec. Grain Sizes, Moist, Sort, Spher, Angul, Sed Struct, Density, Cohesive	
0	1027097	75		Top 4": Topsoil, Middle 4": Grey, fine to very fine SAND and SILT, to organics, moist, moderately dense	0
	1027098	75		Top 8": As Above bottom 10"; Bottom 10": Orange-red brown, fine SAND, trace medium Sand, moist, wet, loose	
4	1027099	83		Top 10": As Above bottom 10" (wet); Bottom 10": Orange-brown, fine SAND, wet, loose	0
	1027100	83		Top 6": Iron-stained, medium to fine SAND, wet, loose; Bottom 14": Orange-brown, fine SAND, trace (-) medium Sand, wet, loose	0
8	1027101	83		Top 8": Greenish-grey, fine SAND, wet, loose; Bottom 12": Grey, CLAY, trace fine to very fine Sand (varved), wet, moderately dense	
	1027102	83		20": As Above	
12				Bottom of Boring 12'	
16					
20					
24					

**Comments:**

Printed On: 8/19/1997

Boring No: NK-SB-259



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> X-194 Former AST <b>LEA Comm No:</b> 68V7042 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/06/97 <b>End Date</b> 03/06/97	<b>Boring ID</b>  <b>NK-SB-260</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027033	75		Top 6": Red brown, fine to very fine SAND, trace organics, moist, loose; Middle 6": Brown, fine SAND, trace organics, moist, moderately dense; Bottom 2": Brown, fine SAND, trace(-) medium Sand, moist, wet (Bottom 3"), loose	0
	1027035 1027034	75 75		18": Grey-brown, fine SAND, trace medium Sand, moist to wet (bottom 3"), loose	0
4	1027036	62		Top 10": As Above (wet); Bottom 5": Grey-brown, fine to medium SAND, wet, loose	0
	1027037	62		Top 6": Grey, fine SAND, wet, loose; Middle 11": Grey, fine to medium SAND, wet, loose; Bottom 2": Grey, fine SAND, wet, loose	0
8	1027038	83		Top 6": As Above Bottom 2"	2
	1027039	83		Top 8": Grey, fine SAND, wet, loose; Bottom 12": Grey, CLAY, trace fine to very fine Sand (varved), wet, dense	3
12				Bottom of Boring 12.2"	
16					
20					
24					

**Comments:**

Printed On: 2/9/1998

Boring NK-SB-260



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Former AST <b>LEA Comm No:</b> 68V7042 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/06/97 <b>End Date</b> 03/06/97	<b>Boring ID</b>  <b>NK-SB-261</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027040	83		Top 4": Topsoil and root material; Bottom 16": Orange-brown, fine SAND, trace very fine Sand, trace medium Sand, trace organics, moist, moderately dense	
	1027041	83		20": Grey to greenish grey, fine SAND, trace very fine Sand, moist to wet (bottom 8")	
4	1027042	83		Top 10": As Above (wet); Bottom 10": Grey-brown, fine to medium SAND, wet, loose	
	1027043	83		Top 8": Grey-fine SAND, wet, loose; Middle 6": grey, fine to medium SAND, wet, loose; Bottom 6": Grey-brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	
8	1027044	83		Top 10": Grey, fine SAND, trace(-) medium Sand, wet, loose; Bottom 10": Brown, medium to fine SAND, little coarse Sand, wet, loose	
	1027045	83		Top 12": As Above bottom 10"; Middle 4": Greenish-grey, fine SAND, wet, loose; Bottom 4": Grey, CLAY, trace fine Sand, wet, loose	
12				Bottom of Boring 12.2'	
16					
20					
24					

**Comments:**

Printed On: 2/9/1998

Boring No: NK-SB-261



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Former AST <b>LEA Comm No:</b> 68V7042 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/06/97 <b>End Date</b> 03/06/97	<b>Boring ID</b>  <b>NK-SB-262</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027046	96		Top 6": Red-brown, fine to very fine SAND, trace organics, moist, loose; Middle 6": Brown, fine SAND, some organics, roots, moist, loose; Bottom 10": Brown, fine SAND, some medium Sand, moist, loose	
	1027047	96		Brown, medium SAND, some fine Sand, wet, loose	
4	1027048	96		Top 8": Brown, medium SAND, some fine Sand, trace Silt, wet, loose; Bottom 12": Brown, fine to medium SAND, trace coarse Sand, wet, loose	
	1027049	96		Top 10": As Above; Bottom 10": Brown, fine SAND, trace medium Sand, wet, loose	
8	1027050	96		Top 6": As Above; Bottom 17": Brown, fine to medium SAND, trace coarse Sand, wet, loose	
	1027051	96		Top 12": Red-brown, fine to medium SAND, some coarse Sand, wet, loose, Bottom 11": Grey, CLAY, trace fine to very fine Sand (varved), wet, dense	
12				Bottom of Boring 12'	
16					
20					
24					

**Comments:**

Printed On: 2/9/1998

Boring No. X-SB-262



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Former AST <b>LEA Comm No:</b> 68V7042 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/06/97 <b>End Date:</b> 03/06/97	<b>Boring ID:</b> <b>NK-SB-263</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> GeoProbe <b>Sampling Method:</b> MC <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> GeoProbe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027052	75		Top 4": Topsoil and root material; Bottom 14": Orange-brown, fine SAND, trace very fine Sand, trace organics, moist, moderately dense	
	1027053	75		18": Grey, fine SAND, trace very fine Sand, moist (wet bottom 10")	
4	1027054	83		Top 15": As Above (wet); Bottom 5": Brown, fine SAND, trace(+) medium Sand, wet, loose	
	1027055	83		Top 7": As Above Bottom 5"; Middle 7": Grey, fine SAND, wet, loose; Middle 7": Grey, fine SAND, wet, loose; Bottom 6": Grey, fine to medium SAND, wet, loose	
8	1027056	83		Top 4": Grey, fine SAND, wet, loose; Middle 4": Grey-brown, fine to medium SAND, wet, loose; Bottom 12": Brown, medium to fine SAND, trace(-) coarse Sand, wet, loose	
	1027057	83		Top 10": As Above Bottom 12"; Middle 4": Brown, fine SAND, wet, loose; Bottom 6": Grey, CLAY, trace fine to very fine Sand (varved), wet, moderately dense	
12				Bottom of Boring 12'	
16					
20					
24					

**Comments:**

Printed On: 2/9/1998  
Boring No: NK-SB-263



# GEOLOGIC BORING LOG

<b>Project:</b> X-430 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7043 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 03/10/97 <b>End Date:</b> 03/10/97		<b>Boring ID:</b> <b>NK-SB-264</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours			<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1026986	100		Top 1.5': Strong brown, fine SAND, trace medium Sand, trace organic matter, moist, loose; Bottom 0.5': Light olive-brown, fine SAND, trace medium Sand, moist, loose	0	
	1026987	100		Light brown, fine to medium SAND, moist, loose, micaceous	0	
4	1026988	100		Brownish-yellow, medium SAND, trace fine Sand, wet, loose	0	
	1026989	100		Yellowish-brown, medium SAND, trace fine Sand, wet, loose	0	
8	1026990	75		Light brown, fine to medium SAND, wet, loose	0	
	1026991	75		Light olive-brown, fine to medium SAND, trace coarse Sand, wet, loose	0	
12	1026992	75		Top 6": As Above; Bottom 1': Grey Clay, wet, loose	0	
	1026993	75		Grey Clay, wet, loose, silt lense @ 15'	0	
16				Bottom of Boring at 16.0'		
20						
24						
<b>Comments:</b> Hole backfilled with bentonite chips after GW sampling						

Printed On: 2/6/1998

Boring No

X-SB-264



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

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<b>Project:</b> X-430 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7043 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/10/97 <b>End Date</b> 03/10/97	<b>Boring ID</b>  <b>NK-SB-265</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\frac{\text{ft}}{\text{blow}}$ <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1026994	100		Top 8": Dark brown, fine to very fine SAND, little organic matter, moist, loose; Middle 6": Yellowish-brown, fine SAND; Bottom 10": Pale brown, fine to medium SAND	0
	1026995	100		Pale brown, fine to medium SAND, moist, loose	0
4	1026996	100		As Above, wet	0
	1026997	100		Yellowish-brown, medium SAND, trace fine Sand, trace coarse Sand, wet, loose	0
8	1026998	60		Yellowish-brown, fine to medium SAND, wet, loose	0
	1026999	60		Yellowish brown, fine to medium SAND, trace(+) coarse Sand, wet, loose, dark brown staining at 11', Clay at 12.2'	0.3
12				Bottom of Boring 12.0'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips after GW sampling

Printed On: 2/6/1998

Boring No: NK-SB-265



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7043 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/11/97 <b>End Date:</b> 03/11/97	<b>Boring ID:</b> <b>NK-SB-266</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027001	80		Top 4": Organic debris; Bottom 1.2'; Dark yellowish-brown, fine SAND, little organic matter, moist, loose	
	1027002	80		Top 6": Light yellowish-brown, fine SAND, trace organic matter, moist, loose, trace organic matter; Bottom 1': Yellowish-brown, fine to medium SAND, moist, loose	
4	1027003	100		Top 6": Light yellowish-brown, medium to fine SAND; Bottom 1.5': Light yellowish-brown, fine to medium SAND, trace(-) coarse Sand, wet, loose, micaceous	
	1027004	100		Top 6": Light yellowish-brown, fine to medium SAND, trace(-) coarse Sand, micaceous, wet, loose; Bottom 1.5': Dark yellowish-brown, fine to medium SAND, dark brown staining at 7.5', orange-red staining at 7.0', wet, loose	
8	1027005	60		Yellowish-brown, fine to medium SAND, wet, loose	
	1027006	60		As Above; Dark brown staining at 8', CLAY encountered at 12. 5'	
12				Bottom of Boring 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips after GW sampling

Printed On: 2/6/1998

Boring NK-SB-266



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7043 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/11/97 <b>End Date:</b> 03/11/97	<b>Boring ID:</b> <b>NK-SB-267</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\nabla$ <b>Depth:</b> At: Hours $\nabla$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027007	100		Top 2": Organic debris; ;Middle 1.2': Dark brown, fine SAND, little organic matter, moist, loose; Bottom 8": Light yellowish-brown, fine SAND, trace Silt	
	1027008	100		Top 6": Light yellowish-brown, fine SAND, moist, loose; Bottom 1.5": Light yellowish-brown, fine to medium SAND, moist, loose	
4	1027009	90		Yellowish-brown, fine to medium SAND, wet, loose, orange-red modeling at 5-6'	
	1027010	90		Yellowish-brown, fine to medium SAND, wet, loose	
8				No Recovery	
				No Recovery	
12				Bottom of Boring 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips after GW sampling



Printed On: 2/6/1998  
Boring No: NK-SB-267

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> MERL Area Add. Invest. <b>LEA Comm No:</b> 68V7048 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/05/97 <b>End Date:</b> 03/05/97	<b>Boring ID:</b> NK-SB-268
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027238	75		Top 6": Topsoil and root mat; Bottom 12": Orange brown, fine SAND, trace(+) medium Sand, trace organics, moist, loose	0
	1027239			Top 1": Dark brown, fine to very fine SAND, trace organics, moist, dense; Bottom 17": Grey brown, fine SAND, moist, loose	0
4	1627240	62		Top 10": As Above Bottom 17"; Bottom 5": Brown, fine to medium SAND, iron staining present, wet, loose	0
	1027241			Top 5": Brown, fine SAND, trace(-) medium Sand, wet, loose; Bottom 10": Brown, fine SAND, trace(+) medium Sand, wet, loose	0
8	1027242	75		Top 8": Grey, fine to medium SAND, wet, loose; Middle 5": Orange brown, fine to medium SAND, wet, loose; Bottom 5": Orange brown, fine SAND, wet, loose	0
	1027243			Top 2": Brown, coarse to fine SAND, wet, loose; Bottom 16": Grey, CLAY, trace fine to very fine Sand, varved, wet, dense	0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:**

Printed on: 1/23/1998

Boring NK-SB-268



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> MERL Area Add. Invest. <b>LEA Comm No:</b> 68V7048 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/05/97 <b>End Date:</b> 03/05/97	<b>Boring ID</b> <b>NK-SB-269</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NR      At:      Hours Depth:            At:      Hours	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027244	62		15": Brown, fine to very fine SAND, trace organics, moist, moderately dense	
	1027245			15": Orange brown, fine SAND, trace organics, moist, loose	
4	1027246	62		Top 10": Brown, fine SAND, trace(+) medium Sand, wet, loose; Bottom 5": Brown, fine to medium SAND, wet, loose	
	1027247			Top 13": Greenish grey, fine SAND, trace(-) medium Sand, wet, loose; Bottom 2": Grey, fine to medium SAND, trace(-) coarse Sand, wet, loose	
8	1027248	83		Top 15": As Above bottom 2"; Bottom 5": Orange brown, medium to fine SAND, trace(-) coarse Sand, wet, loose	
	1027249			20": Grey, CLAY, trace fine to very fine Sand, varved, wet, dense	
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:**

Printed On: 1/23/1998

Boring No: NK-SB-269



# GEOLOGIC BORING LOG

**Project:** MERL Area Add. Invest.  
**LEA Comm No:** 68V7048  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
03/05/97  
**End Date**  
03/05/97

**Boring ID**  
**NK-SB-270**

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** NR      **At:**      **Hours**  
**Depth:**      **At:**      **Hours**

**Logged By:** D. Brisson  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027250	62		Top 4": Concrete and rock fragments in topsoil; Bottom 11": Orange brown, fine SAND, trace very fine Sand, trace organics, moist, loose	0
	1027251 1027252			15": As Above	0
4	1027253	62		15": Brown, fine SAND, trace(+) medium Sand, wet, loose	0
	1027754			Top 5": Orange brown, medium to fine SAND, heavily iron stained, wet, loose; Bottom 10": Orange brown, medium to fine SAND, trace coarse Sand, wet, loose	0
8	1027255	62		15": Grey, medium to fine SAND, trace(-) coarse Sand, wet, loose	0
	1027258			Top 11": As Above; Bottom 4": Grey, CLAY, trace fine to very fine Sand, varved, wet, dense	0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:**

Printed On: 1/23/1998

Boring NK-SB-270



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# GEOLOGIC BORING LOG

<b>Project:</b> MERL Area Add. Invest. <b>LEA Comm No:</b> 68V7048 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/05/97 <b>End Date</b> 03/05/97	<b>Boring ID</b>  <b>NK-SB-271</b>
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DRAFT

<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hour</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> D. Brisson <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1027257	83		Top 6": Topsoil and root mat; Bottom 14": Grey, fine SAND, trace organics, moist, moderately dense	0
	1027258			20": As Above Bottom 14"	0
4	1027259	75		Orange brown, fine SAND, trace(-) medium Sand, wet, loose; Bottom 10": Orange grey brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0
	1027260			Top 8": Orange brown, fine SAND, trace(-) medium Sand, wet, loose; Bottom 10": Orange grey brown, medium to fine SAND, trace(+) coarse Sand, wet, loose	0
8	1027261	62		Top 15": Greenish grey to orange brown, fine SAND, trace(-) medium Sand, wet, loose	0
	1027262			15": Grey, CLAY, coarse to fine to very fine Sand, varved, wet, dense	0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:**

Printed On: 1/23/1998

Boring No: NK-SB-271

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/12/97 <b>End Date</b> 03/12/97	<b>Boring ID</b>  <b>NK-SB-272</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hour $\frac{\downarrow}{\uparrow}$ <b>At:</b> Hours $\frac{\downarrow}{\uparrow}$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028166	100		Top 2": Organic debris; Middle 8": Dark brown, fine SAND, trace Silt, little organic matter; Bottom 1': Brownish yellow, fine SAND, trace Silt, trace organic matter, moist, loose	0
	1028167	100		Top 6": Yellowish brown, fine SAND, trace organic matter, moist, loose; Bottom 1.5': Dark brown, fine SAND, trace Silt, trace organic matter, moist, loose	0
4	1028168 1028170	75		Top 8": Dark brown, fine to medium SAND, wet, loose, orange mottling 5-6'; Bottom 1': Brown, fine to medium SAND	0.2
	1028169	75		Top 6": Brown, fine to medium SAND, with dark brown mottling, wet, loose; Bottom 1': Yellowish brown, medium SAND, wet, loose	80.0
8	1028171	60		Top 8": Greyish brown, fine to medium SAND, trace coarse Sand, wet, loose; Bottom 6": Yellowish brown, fine to medium SAND, trace coarse Sand, wet, loose	0.4
	1028172	60		Top 8": Yellowish brown, medium SAND, dark brown staining at sand-clay interface; Bottom 6": Grey, CLAY, wet, loose	0.2
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/6/1998  
Boring N  
K-SB-272



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/12/97 <b>End Date:</b> 03/12/97	<b>Boring ID</b> <b>NK-SB-273</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: <b>Hours</b> <b>Depth:</b> At: <b>Hours</b>	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028173	100		Top 6": Drk brown, fine SAND, trace Silt, trace organic matter, dry, loose; Bottom 1.5': Brown to orange-brown, fine SAND, trace organic matter, dry, loose	0
	1028174	100		Yellowish brown, fine SAND, trace(-) fine Gravel, moist, loose	0.2
4	1028175	50		Yellowish brown, fine SAND, trace(-) medium Sand, trace(-) fine Gravel, moist, loose	4.8
	1028176	50		As Above	0.4
8	1028177	80		Top 1': Dark brown to brown, fine SAND, trace organic matter, wet, loose; Bottom 0.5': Greyish brown, fine to medium SAND, wet, loose	6.0
	1028178	80		Greyish brown, fine to medium SAND, mottling (dark brown) at 11-12', wet, loose	4.0
12	1028180	80		Top 1.5': Yellowish brown, fine to medium SAND, wet, loose; Bottom 4": Grey, varved CLAY, wet, loose; Dark brown staining at clay/sand interface	0.6
	1028181	80		Grey, varved CLAY, wet, loose	0.3
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed on: 2/6/1998

Boring No: NK-SB-273



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/12/97 <b>End Date:</b> 03/12/97	<b>Boring ID</b> <b>NK-SB-274</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: At: Hours Depth: At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028182	100		Top 4": Organic debris; Middle 6": Dark brown, fine SAND, little organic matter, dry, loose; Bottom 1": Brown to orange brown, fine SAND, dry loose	0
	1028183	100		Brown to orange brown, fine SAND, dry, loose, Cobble at 2'	0
4	1028184	50		Brown to orange brown, fine SAND, Cobbles at 5', moist, loose	0.4
	1028185	50		Dark yellowish brown, fine SAND, moist, loose, wet at 8'	0.4
8	1028186	75		Dark brown, fine SAND, trace Silt, trace organic matter, wet, loose	2.5
	1028187	75		Greyish brown, fine to medium SAND, wet, loose	60
12	1028188	80		Top 8": Yellowish brown, fine to medium SAND, wet, loose; Bottom 1": Grey, CLAY, wet, loose, dark brown staining at sand/clay interface	0.4
	1028189	80		Grey, CLAY, wet, loose	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed on: 2/16/1998

Boring NK-SB-274



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/13/97 <b>End Date</b> 03/13/97	<b>Boring ID</b>  <b>NK-SB-275</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028193	75		Top 2": Organic debris; Middle 6": Light brown, fine SAND, little Silt, dry, loose; Bottom 10": Dark yellowish brown, fine SAND, trace fine and coarse process stone Gravel, dry, loose	0
	1028194	75		Same as last 10": moist 3-4'	0.3
4	1028195 1028197	75		Dark yellowish brown, fine SAND, trace(-) organic matter, moist, loose	0
	1028196	75		Dark brown, fine SAND, trace Silt, trace medium Sand, wet, loose	0.2
8	1028198	80		As Above, trace organic matter, Cobble at 9'	0
	1028199	80		Greyish brown, fine to medium SAND, wet, loose, grading into yellowish brown, fine SAND	0.6
12	1028200	100		Top 8": Yellowish brown, fine SAND, wet, loose; Bottom 14": Yellowish brown, medium to fine SAND, wet, loose	10
	1028201	100		Grey, varved CLAY, wet, loose, reddish brown staining at Sand/Clay interface	0.2
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-275



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/13/97 <b>End Date</b> 03/13/97	<b>Boring ID</b>  <b>NK-SB-276</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>At:</b> Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028202	100		Top 6": Organic debris; Middle 10": Light brown, fine SAND, trace(-) medium Sand, dry, loose; Bottom 8": Yellowish brown, fine SAND, trace coal and cinders, dry, loose	0
	1028203	100		Yellowish brown, fine SAND, trace coal and cinders, moist, loose	0
4	1028204	50		Dark brown, fine SAND, trace coal and cinders, Cobbles at 5- 6", moist, loose, wet at 5'	0.4
	1028205	50		Top 6": Dark brown, fine SAND, trace medium Sand, wet, loose, coal and cinders; Bottom 6": Greyish brown, fine to medium SAND, wet, loose	0
8	1028206	40		Greyish brown, medium to fine SAND, wet, loose	0
	1028207	40		As Above, CLAY in tip	0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/6/1998  
  
Boring No. K-SB-276

# GEOLOGIC BORING LOG

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<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/13/97 <b>End Date</b> 03/13/97	<b>Boring ID</b>  <b>NK-SB-277</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours $\frac{\nabla}{\text{H}}$ <b>Depth:</b> At:                      Hours $\frac{\nabla}{\text{H}}$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028208	90		Top 3": Organic debris; Bottom 18": Yellowish brown to dark yellowish brown, fine SAND, trace fine and coarse Gravel (process stone), dry, loose; 2" layer of light brown, fine to medium SAND at 1.2'	0
	1028209	90		Dark yellowish brown, fine SAND, trace fine and coarse Gravel (process stone), moist, loose, petroleum odor	1.0
4	1028210	25		Dark yellowish brown, fine SAND, moist, loose, petroleum odor	1.0
	1028211	25		Dark brown, fine SAND, trace(-) fine Gravel, wet, loose; strong petroleum odor	210
8	1028212	75		Top 6": Dark brown, fine SAND, trace(+) Silt, wet, loose; Bottom 1': Greyish brown, fine to medium SAND, wet, loose	200
	1028213	75		Top 1.2': Greyish brown, fine to medium SAND, grading to yellowish brown, medium to fine SAND, wet, loose; Bottom 6": Grey, varved CLAY, wet, loose	7.0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/6/1998

Boring No: NK-SB-277



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/13/97 <b>End Date</b> 03/13/97	<b>Boring ID</b>  <b>NK-SB-278</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: At: Hours Depth: At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028214	90		Top 8": Dark brown, fine SAND, some Silt, trace organic matter, dry, loose; Bottom 1.2': Light brown, fine SAND, dry, loose	0
	1028215	90		Dark yellowish brown, fine SAND, trace(-) fine Gravel, moist, loose	0.2
4	1028216	60		Dark yellowish brown, fine SAND, moist, loose	0
	1028217	60		Dark yellowish brown, fine SAND, little medium Sand, wet, loose	60
8	1028218	90		Dark brown, fine SAND, trace Silt, wet, loose, petroleum odor	300
	1025219	90		Greyish brown, fine to medium SAND, grading to yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose; Bottom 6": Grey, varved CLAY, wet, loose	35
12				Bottom of Boring at 12.5'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/2/1998

Boring NK-SB-278



# GEOLOGIC BORING LOG

**Project:** Add. Investigation NK Soil Piles  
**LEA Comm No:** 68V7051  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT  
**Start Date:** 03/13/97  
**End Date:** 03/13/97  
**Boring ID:** NK-SB-279

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro Core  
**Groundwater Observations:**  
**Depth:** At: Hours  
**Depth:** At: Hours  
**Logged By:** J. Trzaski  
**Drilling Foreman:** D. Brisson  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

DRAFT

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028220	100		Top 8": Light brown, fine SAND, trace organic matter, dry, loose; Bottom 1.2': Yellowish brown, fine SAND, dry, loose	0
	1028221	100		Yellowish brown, fine SAND, moist, loose	0
4	1028222	75		As Above	0
	1028223	75		Top 6": As Above; Bottom 1': Dark brown, fine SAND, trace Silt, wet, loose, petroleum odor	275
8	1028224	60		As above last 1'; Bottom 2": Black, sapric organic matter	>1000
	1028225	60		Greyish brown, fine to medium SAND, trace coarse Sand, wet, loose	>1000
12	1028226	75		Top 8": Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose; Bottom 10": Grey, varved CLAY, wet, loose	0
	1028227	75		Same as last 10" above	0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-279



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# GEOLOGIC BORING LOG

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<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/14/97 <b>End Date:</b> 03/14/97	<b>Boring ID:</b> <b>NK-SB-280</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028230	100		Top 8": Light yellowish brown, fine SAND, trace organic matter, micaceous, dry, loose; Bottom 40": Light brown, fine SAND, micaceous, moist, loose	0.8
	1028231	100		Top 5": Same as last 40", petroleum odor; Middle 4": Dark brown, fine SAND, trace Silt, wet, loose, strong petroleum odor; Bottom 39": Dark yellowish brown, fine SAND, moist, loose	68
4	1028232	75		Dark yellowish brown, fine SAND, Cobble at 5', moist, loose, petroleum odor	10
	1028233	75		Dark brown, fine SAND, moist, loose, strong petroleum odor	8.0
8	1028234	88		Dark brown, fine SAND, trace Silt, wet, loose, wet at 8', slight petroleum odor; Bottom 6": Dark brown, fine SAND and black sapric organic matter, wet, loose	>1000
	1028235	88		Greyish brown, fine to medium SAND, wet, trace(-) coarse Sand, loose	100
12	1028236	83		Top 1": Greyish brown, medium SAND, trace(+) coarse Sand, wet, loose; Bottom 8": Grey, varved CLAY, wet, loose	0.4
	1028237	83		Grey, varved CLAY, wet, loose	1.6
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring NK-SB-280



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

UNAF

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/14/97 <b>End Date</b> 03/14/97	<b>Boring ID</b>  <b>NK-SB-281</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> 5.6' <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028238	62		Light brown, fine SAND, some fine and coarse Gravel (process stone), dry, loose, Black bituminous asphalt last 3"	1.4
	1028239	62		Yellowish brown, fine SAND, trace(-) coarse Gravel (process stone) moist, loose, Black bituminous asphalt first 2"	NR
4	1028240 1028242	83 83		Dark yellowish brown, fine SAND, little organic matter, trace medium Sand, wet at 10"	4.6
	1028241			Top 6": As Above; Middle 3": Light yellowish brown, fine to medium SAND, trace organic matter, wet, loose; Bottom 11": Greyish brown, fine to medium SAND, grading to medium fine Sand, wet, loose	1.2
8	1028243	58		Greyish brown, fine to medium SAND, grading to yellowish brown, medium to fine SAND, wet, loose	2.7
	1028244	58		Top 4": Yellowish brown, medium to fine SAND, trace(+) coarse Sand, wet, loose; Bottom 10": Grey, varved CLAY, wet, loose	1.4
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-281



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# GEOLOGIC BORING LOG

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<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/14/97 <b>End Date</b> 03/14/97	<b>Boring ID</b>  <b>NK-SB-282</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028245	100		Top 2": Organic debris; Middle 8": Dark brown, fine SAND, trace(+) Silt, dry, loose, trace organic matter; Bottom 14": Yellowish brown, fine SAND, moist, loose	0.8
	1028246	100		Same as last 14"	0.9
4	1028247	79		Top 8": As Above, trace organic matter; Bottom 11": Dark brown, fine SAND, trace(+) Silt, rotting tree from 8-12", wet at 10"	70
	1028248	79		Top 8": As above bottom 11"; Bottom 11": Greyish brown, fine to medium SAND, wet, loose	40
8	1028249	67		Greyish brown, fine to medium SAND, trace(-) coarse Sand, wet, loose; stained reddish brown at 11-16"et, loose	2.8
	1028250	67		Top 8": Greyish brown, fine to medium SAND, trace(-) coarse Sand, wet, loose; Bottom 8": Grey, varved CLAY, wet, loose	2.8
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998  
Boring NK-SB-282

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/17/97 <b>End Date</b> 03/17/97	<b>Boring ID</b>  <b>NK-SB-283</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours <b>Depth:</b> At:                      Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028253	77		Dark yellowish brown, fine SAND, trace organic matter, trace(-) fine Gravel (process stone), dry, loose	0
	1028254	77		Dark yellowish brown, fine SAND, trace(-) organic matter, trace(-) fine and coarse Gravel (process stone), dry, loose	0
4	1028256	77		Dark yellowish brown, fine SAND, trace(-) organic matter, moist, loose, wet at 17"	0
	1028255 1028257	77		Top 11": As Above; Bottom 7": Dark brown, fine SAND, little Silt, trace organic matter, wet, loose	280
8	1028258	83		Greyish brown, fine to medium SAND, wet, loose	2.2
	1028259	83		Top 12": Greyish brown, fine to medium SAND, trace coarse Sand in last 5", wet, loose; Bottom 8": Grey, varved CLAY, wet, loose	6.4
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-283



# GEOLOGIC BORING LOG

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<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/17/97 <b>End Date:</b> 03/17/97	<b>Boring ID</b> <b>NK-SB-284</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth:            At:            Hours Depth:            At:            Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028260	92		Dark yellowish brown, fine SAND, trace organic matter, dry, loose	0
	1028261	92		Yellowish brown, fine SAND, trace(-) fine Gravel (process stone), dry, loose, trace organic matter	0
4	1028262	67		Dark yellowish brown, fine SAND, trace(-) medium Sand, moist, loose	0
	1028263	67		Top 10": As Above, light brown; Bottom 6": Very dark brown to black, fine SAND, little Silt, wet, loose, wet at 6", slight petroleum odor	>1000
8	1028264	96		Dark brown to black, fine SAND, little Silt, little black, sapric organic matter, wet, loose, slight petroleum odor	100
	1028265	96		Top 3": As Above; Bottom 20": Greyish brown, medium to fine SAND (7"), grading to fine to medium SAND (8"), trace fine Gravel, trace coarse Sand in final 5", wet, loose	450
12	1028266	62		Top 6": Yellowish brown, medium SAND, little coarse Sand, trace fine Gravel, wet, loose; Bottom 9": Grey, varved CLAY, moist, loose	2.0
	1028267	62		Grey, varved CLAY, moist, loose	0.5
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring NK-SB-284



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/17/97 <b>End Date</b> 03/17/97	<b>Boring ID</b>  <b>NK-SB-285</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028268	100		Dark yellowish brown, fine SAND, trace(-) medium Sand, trace organic matter, dry, loose	0
1	1028269	100		Yellowish brown, fine SAND, trace(-) medium Sand, moist, loose; Last 3": Blue grey, coarse GRAVEL (process stone)	0
4	1028270	62		Yellowish brown, fine SAND, moist, loose	0
5	1028271	62		Top 10": As Above, wet at 5"; Bottom 5": Dark yellowish brown, fine SAND, trace Silt, wet, loose	20
8	1028272	71		Dark brown, fine SAND, trace Silt, trace(-) medium Sand, trace black, sapric organic matter, wet, loose	>1000
10	1028273	71		Dark greyish brown to greyish brown, medium to fine SAND (5" ) grading to fine to medium SAND (7") to medium to fine SAND (5"), trace coarse Sand, wet, loose	400
12	1028274	83		Top 5": Yellowish brown, medium SAND, little coarse Sand, trace fine Gravel, wet, loose; Bottom 15": Grey, varved CLAY, wet, loose	2.5
15	1028275	83		Grey, varved CLAY, moist, loose	0.5
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-285



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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**GEOLOGIC BORING LOG**

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<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/18/97 <b>End Date</b> 03/18/97	<b>Boring ID</b>  <b>NK-SB-286</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\frac{1}{2}$ <b>Depth:</b> At: Hours $\frac{1}{2}$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028280	96		Top 2": Dark brown, fine SAND to Silt, trace organic matter, dry, loose; Middle 10": Yellowish brown, fine SAND, trace medium Sand, dry, loose; Bottom 11": Dark yellowish brown, fine SAND, trace Silt, dry, loose, trace organic matter	0
	1028281	96		Top 3": Same as last 11"; Middle 10": Yellowish brown, fine SAND, trace medium Sand, moist, loose; Bottom 10": Dark yellowish brown, fine SAND, moist, loose, wood pieces at bottom	0
-4	1028282	67		Dark yellowish brown fine SAND, trace Silt, trace organic matter, moist, loose; 1" layer: Light brown, fine to medium SAND at 5"; 2" layer: organic tree matter at 8"	1.0
	1028283	67		Top 4": Dark yellowish brown, fine SAND, trace Silt, moist, loose; Bottom 12": Yellowish brown, fine SAND, trace medium Sand, trace(-) coarse Sand, moist, loose	0
-8	1028284	25		Black, bituminous asphalt, little dark brown, fine SAND, trace Silt, trace organic matter	NR
	1028285	25		Dark brown, fine to medium SAND, moist, loose	NR
-12	1028286	88		Top 6": Greyish brown, medium to fine SAND, trace coarse Sand, wet, loose, wet at 0"; Bottom 15": Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose	9.0
	1028287	88		Top 4": Same as above bottom 15"; Bottom 17": Grey, varved CLAY, wet, loose	0
-16				Bottom of Boring at 16'	
-20					
-24					

Printed On: 2/16/1998

Boring NK-SB-286

**Comments:** Hole backfilled with bentonite chips



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/18/97 <b>End Date</b> 03/18/97	<b>Boring ID</b>  <b>NK-SB-287.</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At:                      Hours $\nabla$ <b>Depth:</b> At:                      Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028288	96		Top 2": Organic debris; Middle 1': Dark brown, fine SAND, trace Silt, little organic matter, dry, loose; Bottom 9": Yellowish brown, fine SAND, trace organic matter, dry, loose	0
	1028289	96		Top 18": Same as above last 9"; Bottom 5": Light brown, fine SAND, trace medium Sand, trace organic matter, dry, loose	0
4	1028290	75		Top 3": Dark yellowish brown, fine SAND, trace Silt, trace organic matter, moist, loose; Bottom 15": Brownish yellow, fine SAND, moist, loose	0
	1028291	75		Top 2": As Above; Middle 4": Dark yellowish brown, fine SAND, trace bituminous asphalt, moist, loose; Bottom 12": Same as top 2"	0
8	1028292 1028294	88		Top 14": Yellowish brown, fine to medium SAND, moist, loose; Bottom 7": Yellowish brown, medium to fine SAND, moist, loose	0
	1028293	88		Top 10": As Above last 7", wet at 3"; Bottom 11": Greyish brown, medium to fine SAND, trace coarse Sand, wet, loose	90
12	1028295	83		Top 13": Yellowish brown, medium to fine SAND, trace coarse Sand, trace(-) fine Gravel, wet, loose; Bottom 7": Grey, varved CLAY, wet, loose	3.0
	1028296	83		As Above last 7"	1.0
16				Bottom of Boring at 16'	
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-287



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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/18/97 <b>End Date:</b> 03/18/97	<b>Boring ID:</b> <b>NK-SB-288</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\nabla$ At: Hours $\nabla$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028297	88		Top 2": Organic matter; Middle 1': Dark yellowish brown, fine SAND, trace Silt, little organic matter, dry, loose; Bottom 7": Yellowish brown, fine SAND, trace(-) process stone, fine and coarse Gravel, dry, loose	0
	1028298	88		As Above last 7"	0
4	1028299	88		Top 10": As Above, moist; Middle 5": Dark brown, fine SAND, trace Silt, trace organic matter, moist, loose; Bottom 6": Same as top 10"	0.5
	1028300	88		Top 5": As Above last 6"; Bottom 16": Yellowish brown, fine SAND grading to fine to medium SAND, wet, loose, wet at 17"	0
8	1028301	100		Yellowish brown to greyish brown, medium to fine SAND, trace(-) coarse Sand, wet, loose	80
	1028302			Top 1': As Above; Bottom 1': Grey, varved CLAY, moist to wet, loose	3.0
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998  
Boring NK-SB-288



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/18/97 <b>End Date</b> 03/18/97	<b>Boring ID</b>  <b>NK-SB-289</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028303	79		Dark yellowish brown, fine SAND, trace Silt, trace organic matter, dry, loose	0
	1028304	79		Yellowish brown, fine SAND, trace organic matter, dry, loose	0
4	1028305	79		Top 17": As Above, moist; Bottom 2": Dark brown to black, SILT and fine SAND, moist, loose	0
	1028306	79		Top 3": Yellowish brown, fine SAND, moist, moderately dense; Middle 9": Dark brown to black, fine SAND, some Silt, little organic matter, moist, moderately dense; Bottom 5": Brownish yellow, fine SAND, trace medium Sand, moist moderately dense	0.5
8	1028307	96		Yellowish brown, very fine SAND (3") grading to fine SAND (10") grading to fine to medium SAND (10"), wet, loose, wet at 0'	0.5
	1028310	96		Yellowish brown, medium to fine SAND, trace coarse Sand, wet, loose, Clay at tip	90
12				Bottom of Boring at 12.5'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 2/16/1998

Boring No: NK-SB-289



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Add. Investigation NK Soil Piles <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/18/97 <b>End Date</b> 03/18/97	<b>Boring ID</b>  <b>NK-SB-290</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028309	71		Dark yellowish brown, fine SAND, trace fine and coarse Gravel (at 14-17"), dry, loose	0
	1028308	71		Top 7": Dark yellowish brown, fine SAND, dry, loose; Middle 3": Black, bituminous asphalt; Bottom 7": Same as Top 7", trace brick fragments	0
4	1028311	29		Yellowish brown, fine SAND, moist, loose	0
	1028312	29		Top 3": As Above; Bottom 4": Tree fragment	NR
8	1028313	88		Top 6": Yellowish brown, fine SAND, wet, loose; Bottom 15": Yellowish brown, fine to medium SAND, wet, loose	15
	1028314	88		Top 16": As Above last 15"; Bottom 5": Greyish brown, medium to fine SAND, trace coarse Sand, wet, loose	100
12	1028315	96		Top 2": As Above last 5"; Bottom 21": Grey, varved CLAY, wet, loose	1.0
	1028316	96		Grey, vared CLAY, wet, loose	1.0
16				Bottom of Boring at 16'	
20					
24					

Printed On: 2/16/1998

Boring NK-SB-290

**Comments:** Hole backfilled with bentonite chips



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Exp. Strg. UST <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 03/19/97 <b>End Date</b> 03/19/97	<b>Boring ID</b>  <b>NK-SB-291</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth:            At:                    Hours Depth:            At:                    Hours	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028300	100		Top 1": Organic debris; Bottom 23": Dark brown, fine SAND, dry, moderately dense, process stone Cobble at 1', trace organic matter	0
	1028321			Yellowish brown, fine SAND, moist, moderately dense	0
4	1028322	96		Yellowish brown, fine to very fine SAND, moist, loose, black lense at 4"	0
	1028323			Top 1": Yellowish brown, fine SAND, moist, loose, wet at 7"; Bottom 10": Yellowish brown, fine to medium SAND, wet, loose	0.2
8	1028617	92		Top 5": Same as above last 10"; Middle 2": Reddish brown, SILT, wet, loose; Bottom 15": Yellowish brown, fine SAND, wet, loose	2.0
	1028618			Top 8": Same as above last 15"; Next 2": Reddish brown, SILT, wet, loose; Next 7": Yellowish brown, fine to very fine SAND, wet, loose; Bottom 5": Grey, varved CLAY, wet, loose	1.8
12				Bottom of Boring at 12.5'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 1/23/1998  
Boring No: NK-SB-291



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Exp. Strg. UST <b>LEA Comm No:</b> 68V7051 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 03/19/97 <b>End Date:</b> 03/19/97	<b>Boring ID:</b> NK-SB-292
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: At: Hours $\nabla$ Depth: At: Hours $\nabla$	<b>Logged By:</b> J. Trzaski <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1028619	100		Top 1': Dark brown, fine SAND, little Silt, trace organic matter, dry, loose; Bottom 1': Yellowish brown, fine SAND, dry, moderately dense	0
	1028620			Top 1': Same as above last 1', moist; Middle 7": Greyish brown, fine SAND, moist, moderately dense; Bottom 5": Yellowish brown, fine to medium SAND, moist, loose, reddish orange staining at 1.6	0.5
4	1028621	96		Yellowish brown, fine SAND grading to fine to medium SAND, wet, loose, wet at 1'	0.4
	1028622			Yellowish brown, fine to medium SAND, wet, loose	0
8	1028623	79		Top 6": Yellowish brown, fine SAND, wet, loose; Bottom 13": Yellowish brown, fine to very fine SAND, wet, loose	100
	1028624			Top 14": Yellowish brown, fine to very fine SAND, wet, loose; Bottom 5": Grey, varved CLAY, wet, loose	8
12				Bottom of Boring at 12'	
16					
20					
24					

**Comments:** Hole backfilled with bentonite chips

Printed On: 1/23/1998

Boring NK-SB-292



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> X-194 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7062 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 05/22/97 <b>End Date</b> 05/22/97	<b>Boring ID</b>  <b>NK-SB-293</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> I. Rosovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634105	67		Very fine light brown SAND, some Silt, moist, very dense, some black organic particles	0
4	1634106	67		Yellowish-brown, fine SAND, some Silt, moist to wet, very dense	0
8				Bottom of Boring 4'	
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 2/9/1998

Boring No: NK-SB-293



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7062 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 05/22/97 <b>End Date:</b> 05/22/97	<b>Boring ID:</b> <b>NK-SB-294</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634107	88		Very fine SAND, some Silt, brownish-black, some organic matter, moist, dense	0
4	1634108	88		Light brown, very fine SAND, some medium Sand, moist, dense	0
4				Bottom of Boring at 4'	
8					
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 2/9/1998  
Boring NK-SB-294



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7062 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 05/20/97 <b>End Date</b> 05/20/97	<b>Boring ID</b>  <b>NK-SB-295</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours At: Hours	<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634092	70		Fine SAND, yellowish, slightly moist, loose; 3' to 4' very fine SAND, little greyish-brown Silt, moist, loose	3.5
	1634093	70			8.5
4				Bottom of Boring 4'	
8					
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 2/9/1998  
  
Boring No: NK-SB-295



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7062 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 05/20/97 <b>End Date</b> 05/20/97	<b>Boring ID</b>  <b>NK-SB-296</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>		<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
<b>Depth:</b> At: Hours $\frac{\nabla}{\text{---}}$ <b>Depth:</b> At: Hours $\frac{\nabla}{\text{---}}$		

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634094	60		Top 3": Black, fine SAND, moist, some Silt, very fine Sand, brownish-black, moist, loose; Bottom 45": Yellowish-brown SILT, some very fine Sand, moist	1.2
	1634095	60			2.5
4				Bottom of Boring 4'	
8					
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 2/9/1998  
Boring NK-SB-296



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> North Klondike Soil Piles <b>LEA Comm No:</b> 68TR656 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/8/96 <b>End Date:</b> 8/8/96	<b>Boring ID:</b> <b>NK-SB-53</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Hand Auger <b>Sampling Method:</b> Bucket Auger <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\Delta}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\Delta}{\nabla}$	<b>Logged By:</b> F. Postma <b>Drilling Foreman:</b> B. Tomicic <b>Drill Rig:</b> Hand Auger <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1016798	100		Yellowish brown, fine SAND, some medium Sand, loose, moist, plastic sheeting, brick fragments, metal	
2	1016799	100		As above	
4	1016800	100		As above; Strong brown to black, fine SAND, little Silt, moderately dense, moist	
6.2				Auger refusal at 6.2'	
8					
10					
12					
14					
16					
18					
20					
22					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998  
Boring No: NK-SB-53



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 8/15/96 <b>End Date:</b> 8/15/96		<b>Boring ID:</b> <b>NK-SB-54</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{1}{2}$			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1017186	100		12": Brown, fine SAND and SILT, trace medium Sand, trace(-) fine Gravel, ash, moist, loose; 11": Dark brown black, fine SAND and SILT, moist, loose	0.0	
	1017188	100		18": As above; 5": Brown, fine to medium SAND, with Silt, little coarse Sand, very moist, loose	0.0	
4	1017189	100		As above, wet	0.0	
	1017190	100		Yellowish brown, medium to coarse SAND, some fine trace Silt, trace(-) fine Gravel, wet, loose	0.1	
8	1017191	100		As above	0.3	
	1017192	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.2	
12	1017193	100		As above	0.0	
	1017194	100		As above	0.0	
16				Bottom of boring 15'		
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/22/1998

Boring NK-SB-54



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 8/15/96 <b>End Date:</b> 8/15/96	<b>Boring ID:</b> <b>NK-SB-55</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM      At:      Hours At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017195	100		12": Brown, fine SAND and SILT, trace medium Sand, trace(-) fine Gravel, ash, moist, loose; 11": Dark brown/black fine SAND and SILT, moist, loose	0.0
	1017196	100		10": As above; 13": Brown, fine to medium SAND, with Silt, little coarse Sand, very moist, loose	0.0
4	1017198	100		As above; wet	0.0
	1017199	100		Yellowish brown, medium to coarse SAND, trace fine Sand, trace(-) Silt, wet, loose	0.1
8	1017200	100		As above	0.0
	1017201	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12	1017202	100		As above	0.0
	1017203	100		As above	0.0
16				Bottom of boring at 15.0	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998  
Boring No: NK-SB-55



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Area <b>LEA Comm No:</b> 68TR667 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 8/15/96 <b>End Date</b> 8/15/96	<b>Boring ID</b> NK-SB-56
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1017204	100		10": Brown, fine SAND, with Silt, trace medium Sand, trace(-) fine Gravel, ash, moist, loose; 13": Dark brown black, fine SAND and SILT, moist, loose	0.1
	1016776	100		15": As above; 8": Brown, fine to medium SAND, with Silt, little coarse Sand, very moist, loose	0.0
4	1016777	100		As above; wet	0.0
	1016778	100		Yellowish brown, medium to coarse SAND, some fine Sand, trace Silt, trace(-) fine Gravel, wet, loose	0.1
8	1016779	100		As above	0.4
	1016780	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.2
12	1016781	100		As above	0.0
	1016782	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/22/1998

Boring No. NK-SB-56



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/26/96 <b>End Date</b> 9/26/96	<b>Boring ID</b> NK-SB-57
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> Northing: Easting:
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018548	100		3": Dark brown, fine SAND, with Silt, moist, loose, root fragments; 20": Light yellow, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
	1018549	100		As above, wet	0.6
-4	1018550	100		As above	1.4
	1018551 1018552	100		Strong brown, medium SAND, some fine SAND, little coarse Sand, trace Silt, wet, loose	0.2
-8	1018553	100		As above	0.0
	1018554	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
-12	1018555	100		As above	0.0
	1018556	100		As above	0.0
-16				Bottom of boring at 15.0'	
-20					
-24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-57



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/26/96 <b>End Date</b> 9/26/96	<b>Boring ID</b> NK-SB-58
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018557	100		5": Dark brown, fine SAND, with Silt, moist, loose; 18": Strong brown, fine SAND, little medium Sand, trace Silt, moist, loose	1.0
	1018558	100		As above, wet	2.4
4	1018559	100		As above	0.4
	1018560	100		As above	0.4
8	1018561	100		As above	0.2
	1018562	100		16": As above; 7": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12	1018563	100		As above	0.0
	1018564	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-58



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 9/25/96 <b>End Date:</b> 9/25/96	<b>Boring ID:</b> <b>NK-SB-59</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018538	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose	0.4
	1018539	100		10": As above; 13": Olive brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.1
4	1018540	100		As above	0.2
	1018541	100		As above	0.0
8				No Recovery	
	1018543	50		Olive grey, varved CLAY, trace Silt, wet, stiff	0.1
12	1018544	100		As above	0.0
	1018545	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

Printed On: 1/23/1998  
Boring No: NK-SB-59

**Comments:** Borehole backfilled with bentonite chips upon completion.



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/24/96 <b>End Date</b> 9/24/96	<b>Boring ID</b>  <b>NK-SB-60</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\nabla$ Depth:      At:      Hours $\nabla$		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1015811	100		Light yellowish brown, fine to medium SAND, trace Silt, moist, loose	0.0
	1015812	100		Olive brown, fine to medium SAND, some coarse Sand, little Silt, moist, loose	0.0
4	1015813	100		As above	0.0
	1015814	100		As above, wet	0.0
8				No recovery	
	1015816	15		Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12	1015817	100		As above	0.0
	1015818	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-60



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# GEOLOGIC BORING LOG

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<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/26/96 <b>End Date</b> 9/26/96	<b>Boring ID</b>  <b>NK-SB-61</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <input type="checkbox"/> <b>Depth:</b> <b>At:</b> <b>Hours</b> <input type="checkbox"/>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018565	100		6": Dark brown, fine SAND, with Silt, moist, loose; 17": Strong brown, fine to medium SAND, little Silt, trace coarse Sand, very moist, loose	0.7
	1018566	100		As above, wet	0.1
4	1018567	50		As above	0.0
	1018568	50		As above	0.3
8	1018569	50		Olive grey, varved CLAY, trace Silt, wet, stiff	0.4
	1018570	50		As above	0.0
12	1018571	100		As above	0.0
	1018542	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-61



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 9/24/96 <b>End Date:</b> 9/24/96	<b>Boring ID:</b> NK-SB-62
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018502	100		5": Dark brown, fine SAND and SILT, moist, loose root fragments; 18": Reddish brown, fine to medium SAND, little Silt, moist, loose	0.0
	1018503	100		Dark greyish brown, fine to medium SAND, little Silt, moist, loose	0.0
4	1018504 1018505	100		As above	0.0
	1018506	100		As above, wet	0.4
8	1018507	100		Olive brown, fine to medium SAND, some coarse, trace Silt, wet, loose	2.1
	1018508	100		11": As above; 12": Olive grey, varved CLAY, trace Silt, wet, stiff	1.0
12	1018509	100		As above	0.0
	1018510	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-62



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/25/96 <b>End Date</b> 9/25/96	<b>Boring ID</b>  <b>NK-SB-63</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018521	100		4": Dark brown, fine SAND, some Silt, moist, loose; 19": Reddish yellow, fine SAND, little medium Sand, trace Silt, very moist, loose	0.3
	1018522	100		Greyish brown, fine to medium SAND, some Silt, trace coarse Sand, wet, loose	0.0
4	1018523	50		Olive brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.0
	1018524	50		As above	0.0
8	1018525	100		8": Dark reddish brown, medium SAND, with fine Sand, little coarse Sand, trace Silt, wet, loose; 15": Olive brown, fine to medium SAND, little Silt, trace coarse Sand, wet, loose	0.0
	1018526	100		17": As above; 6": Olive grey, varved CLAY, trace Silt, wet, stiff	0.0
12	1018527	100		As above	0.0
	1018528	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998

Boring No: NK-SB-63



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Area <b>LEA Comm No:</b> 68VC606 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 9/25/96 <b>End Date:</b> 9/25/96	<b>Boring ID:</b> <b>NK-SB-64</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018529	100		Brown, fine SAND and SILT, trace medium Sand, moist, loose	0.4
	1018530	100		Olive brown, medium SAND, with fine Sand, little Silt, wet, loose	0.0
4	1018531	100		As above	0.7
	1018532	100		As above	0.0
8	1018533 1018534	50		Olive brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	0.4
	1018535	50		10": As above; 2": Olive grey, varved CLAY, trace Silt, wet, stiff	0.4
12	1018536	100		As above	0.2
	1018537	100		As above	0.0
16				Bottom of boring at 15.0'	
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-64



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 9/30/96 <b>End Date:</b> 10/1/96		<b>Boring ID:</b> <b>NK-SB-65</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
<b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>						
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1018628	100		12": Black, fine SAND and SILT, moist, slightly stiff; 11": Olive brown, fine SAND and medium SAND, moist, loose	0.0	
	1018629	100		As above	0.0	
4	1018630	100		As above	7.1	
	1018688	75		Strong brown, fine to medium SAND, trace Silt, wet, loose	3.4	
8	Bottom of boring at 8.0'					
12						
16						
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. Sample 1018688 was collected on 10/1/96 1' away from the original boring.						

Printed On: 1/23/1998

Boring No: NK-SB-65



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 9/30/96 <b>End Date:</b> 10/1/96		<b>Boring ID:</b> <b>NK-SB-66</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1018624	100		10": Black, fine SAND and SILT, moist, slightly stiff; 13": Olive brown, fine to medium SAND, trace Silt, moist, loose	0.0	
	1018625 1018626	100		As above	0.0	
4	1018627	100		As above	1.1	
	1018687	75		Strong brown, fine to medium SAND, trace Silt, wet, loose	3.6	
8	Bottom of boring at 8.0'					
12						
16						
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion. Sample 1018687 was collected on 10/1/96 1' away from the original boring.						

Printed On: 1/23/1998

Boring NK-SB-66



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/30/96 <b>End Date</b> 10/1/96	<b>Boring ID</b>  <b>NK-SB-67</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{17}{11}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{17}{11}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018621	100		12": Black, fine SAND and SILT, moist, slightly stiff; 11": Olive brown, medium SAND, some fine Sand, trace Silt, moist, loose	0.0
	1018622	100		As above	15.0
4	1018623	100		As above	2.5
	1018685 1018686	100		Strong brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, wet, loose	6.3
8				Bottom of boring at 8.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion. Samples 1018685 and 1018686 were collected on 10/1/96 1' away from the original boring.

Printed On: 1/23/1998  
Boring No: NK-SB-67



**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/30/96 <b>End Date</b> 9/30/96	<b>Boring ID</b>  <b>NK-SB-68</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018631	100		12": Black, fine SAND, with Silt, moist, slightly stiff; 11": Olive brown, fine to medium SAND, trace Silt, moist, loose	0.0
	1018632	100		As above	0.0
4	1018633	100		As above	0.6
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-68



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 9/30/96 <b>End Date:</b> 9/30/96	<b>Boring ID:</b> <b>NK-SB-69</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM      At:      Hours <b>Depth:</b> At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018634	100		11": Black, fine SAND and SILT, moist, slightly stiff; 12": Olive brown, fine to medium SAND, trace Silt, moist, loose	0.0
4	1018635	100		As above	0.0
4	1018636	100		As above	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-69



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 9/30/96 <b>End Date</b> 9/30/96	<b>Boring ID</b> NK-SB-70
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018637	100		10": Black, fine SAND and SILT, moist, slightly stiff; 13": Olive brown, fine to medium SAND, trace Silt, moist, loose	0.0
	1018638	100		As above	0.0
4	1018639	100		As above	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-70





# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/2/96 <b>End Date:</b> 10/2/96		<b>Boring ID:</b> <b>NK-SB-72</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description		(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
8	1018690	100		Strong brown, fine SAND and medium SAND, some Silt, little coarse Sand, wet, loose		
12				Bottom of boring at 8.0'		
16						
20						
24						
28						
<b>Comments:</b> Sampled only at 6-8' interval; borehole backfilled with bentonite chips upon completion.						

Printed On: 1/23/1998

Boring NK-SB-72



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-415 Area <b>LEA Comm No:</b> 68VC608 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/1/96 <b>End Date</b> 10/1/96	<b>Boring ID</b>  <b>NK-SB-73</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Large Bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
8	1018684	75		Strong brown, fine to medium SAND, little coarse Sand, trace Silt, wet, loose	2.4
12				Bottom of boring at 8.0'	
16					
20					
24					
28					

**Comments:** Sampled only at 6-8' interval; borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-73



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/3/96 <b>End Date</b> 10/3/96	<b>Boring ID</b> NK-SB-74
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018663	100		Dark brown, fine to medium SAND, little coarse, trace(+) Silt, trace(-) rip rap, moist, loose	0.0
	1018664	100		Brown, medium SAND and fine SAND, some coarse Sand, little Silt, very moist, loose	0.0
4	1018665 1018683	100		As above, wet	0.0
	1018684	100		As above	0.0
8	1018685	25		As above	0.0
	1018686	25		Brown, fine SAND and SILT, wet, loose	0.0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-74

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/2/96 <b>End Date</b> 10/2/96	<b>Boring ID</b>  <b>NK-SB-75</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018648	100		Dark brown, fine SAND, little Silt, trace(+) medium Sand, moist, loose, root fragments	0.0
2	1018649	100		10": As above; 13": Strong brown, fine to medium SAND, trace Silt, very moist, loose	0.2
4	1018650	100		As above, wet	0.9
6				Bottom of boring at 6.0'	
8					
10					
12					
14					
16					
18					
20					
22					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-75



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/2/96 <b>End Date</b> 10/2/96	<b>Boring ID</b> NK-SB-76
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{V}{\square}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{V}{\square}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018651	100		Dark brown, fine SAND, some Silt, trace(+) medium Sand, moist, loose, root fragments	0.0
	1018652 1018653	100		12": As above; 11": Strong brown, fine SAND, little Silt, very moist, loose	0.4
4	1018654	100		As above, wet	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-76



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/2/96 <b>End Date:</b> 10/2/96	<b>Boring ID:</b> <b>NK-SB-77</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018658	100		5": Concrete; 3": Subbase; 15": Brown, fine SAND, little Silt, moist, loose	0.0
4	1018659	100		15": Black, fine SAND and SILT, moist, slightly stiff; 8": Strong brown, fine SAND, little medium Sand, trace Silt, moist	6.4
4	1018660	100		As above, wet	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-77



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/2/96 <b>End Date</b> 10/2/96	<b>Boring ID</b>  <b>NK-SB-78</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018655	100		Dark brown, fine SAND, trace Silt, moist, loose, root fragments	0.3
	1018656	100		10": As above; 13": Light yellowish brown, fine SAND, trace Silt, moist, loose	6.9
4	1018657	100		Strong brown, fine SAND, some medium Sand, trace Silt, wet, loose	6.0
				Bottom of boring at 6.0'	
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-78



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/3/96 <b>End Date</b> 10/3/96	<b>Boring ID</b>  <b>NK-SB-79</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018687	100		Dark brown, fine to medium SAND, some coarse Sand, little Silt, moist, loose, root fragments	0.0
	1018688	100		Brown, medium SAND and fine SAND, some coarse Sand, little Silt, very moist, loose	0.1
4	1018689	100		As above, wet	1.4
	1018690	100		As above	2.5
8		0		No recovery	
		0		No recovery	
12	Bottom of boring at 12.0'				
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-79



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-430 Area Add. Invest. <b>LEA Comm No:</b> 68VC609 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/3/96 <b>End Date</b> 10/3/96	<b>Boring ID</b> NK-SB-80
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018693	100		Dark brown, fine SAND and SILT, little medium Sand, moist, loose, root fragments	0.0
	1018694	100		Brown, fine to medium SAND, trace Silt, moist, loose	0.0
4	1018695	100		As above, wet	0.9
	1018696	100		As above	0.6
8	1018697	15		As above	0.0
	1018698	15		Olive grey, varved CLAY, little Silt, wet, stiff ( $\approx$ 11.75')	0.0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-80



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/4/96 <b>End Date:</b> 10/4/96	<b>Boring ID:</b> <b>NK-SB-81</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b>		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
<b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\downarrow}{\uparrow}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\downarrow}{\uparrow}$		

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018830	100		Light brown, fine SAND, trace medium Sand, moist, very loose	
	1018831 1018832	100		As above	
4	1018833	100		Brown, medium SAND, some coarse Sand, little fine Sand, wet $\approx$ 5.0', loose	
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-81



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/4/96 <b>End Date</b> 10/4/96	<b>Boring ID</b>  <b>NK-SB-82</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large Bore <b>Groundwater Observations:</b>		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
<b>Depth: NM</b> <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /5'	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018849	100		Light brown, fine SAND, trace Silt, moist, loose	0.0
	1018850	100		As above	0.0
4	1018851	100		Brown, fine SAND, some medium Sand, wet at ≈ 5.0', loose	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-82



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/4/96 <b>End Date</b> 10/4/96	<b>Boring ID</b>  <b>NK-SB-83</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\text{V}}{\text{H}}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018834	100		Brown, fine SAND, trace(-) Silt, moist, loose	0.0
4	1018835	100		Light brown, fine SAND, moist, loose	0.0
4	1018836	100		As above, very moist	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring No: NK-SB-83



**GEOLOGIC BORING LOG**

**DRAFT**

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/4/96 <b>End Date:</b> 10/4/96		<b>Boring ID:</b> <b>NK-SB-84</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description		
	Sample No.	Recovery (%)	Blows /ft	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness (ppm)		
0	1018837	100		Light brown, fine SAND, trace(-) medium Sand, moist, loose		
	1018838	100		As above		
4	1018839	100		Brown, medium SAND, with fine Sand, trace coarse Sand, wet, loose		
				Bottom of boring at 6.0'		
8						
12						
16						
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/23/1998

Boring NK-SB-84



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/4/96 <b>End Date</b> 10/4/96	<b>Boring ID</b>  <b>NK-SB-85</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> Depth: NM      At:      Hours $\frac{\nabla}{\nabla}$ Depth:      At:      Hours $\frac{\nabla}{\nabla}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018843	100		Light brown, fine SAND, trace Silt, moist, loose	0.0
	1018844	100		As above	0.0
4	1018845	100		Brown, fine to medium SAND, wet at $\approx$ 5.0', loose	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring No: NK-SB-85



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/4/96 <b>End Date</b> 10/4/96	<b>Boring ID</b>  <b>NK-SB-86</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth: NM At: Hours</b> <b>Depth: At: Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018846	100		Light brown, fine SAND, little Silt, moist, loose	0.0
	1018847	100		Light brown, fine SAND, trace Silt, moist, loose	0.0
4	1018848	100		As above, wet at ≈ 5.0'	
				Bottom of Boring at 6.0'	0.0
8					
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-86



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/4/96 <b>End Date:</b> 10/4/96	<b>Boring ID</b>  <b>NK-SB-87</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\text{Hours}}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\text{Hours}}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018840	100		Brown, fine SAND, moist, loose, root fragments	0.0
4	1018841	100		Light brown, fine SAND, trace medium Sand, moist, loose	0.0
4	1018842	100		Light brown, fine to medium SAND, trace(-) Silt, wet $\approx$ 5.0', loose	0.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-87



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/7/96 <b>End Date:</b> 10/7/96		<b>Boring ID:</b> <b>NK-SB-88</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description	(ppm)	
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness		
0	1018854	100		Brown, fine SAND, with Silt, moist, loose	0.0	
4	1018855 1018856	100		Strong brown, medium SAND, some fine Sand, little coarse Sand, trace Silt, moist, loose	0.0	
8	1018857	100		Greyish brown, fine to medium SAND, moist, loose, slight hydrocarbon odor	0.3	
12	1018858	100		Greyish brown, medium to coarse SAND, some fine Sand, trace Silt, wet, loose, hydrocarbon odor	7.8	
16				No recovery		
20	1018859	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.3	
24				Bottom of boring at 12.0'		
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/23/1998

Boring NK-SB-88



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/7/96 <b>End Date</b> 10/7/96	<b>Boring ID</b>  <b>NK-SB-89</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018860	100		Brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.0
	1018861	100		Light brown, fine to medium SAND, trace Silt, moist, loose	0.0
4	1018862	100		Greyish brown, fine to medium SAND, little coarse Sand, trace Silt, wet at $\approx$ 5.5', loose	0.9
	1018863	100		As above	1.0
8	1018864	50		No recovery 8-9'; 12": Olive grey, varved CLAY, trace Silt, wet, stiff	0.2
	1018865	100		As above	0.0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-89



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/8/96 <b>End Date</b> 10/8/96	<b>Boring ID</b> <b>NK-SB-90</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\nabla}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018868	100		Light brown, fine SAND and medium SAND, trace Silt, moist, loose	0.0
	1018869	100		As above	0.1
4	1018870 1018871	100		Light brown, medium SAND, with fine Sand, trace(+) Silt, trace(-) coarse Sand, wet at $\approx$ 5.5', loose	1.8
	1018872	100		Pinkish grey, medium to coarse SAND, some fine Sand, little fine Gravel, trace (-) Silt, wet, loose	0.6
8	1018873	50		10": As above; 2": Olive grey, varved CLAY, trace Silt, wet, very stiff	0.5
	1018874	100		As above	0.1
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-90



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/8/96 <b>End Date:</b> 10/8/96	<b>Boring ID</b> <b>NK-SB-91</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018875	100		Brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.0
	1018876	100		As above	0.0
-4	1018877	100		Brown, fine to medium SAND, trace Silt, wet at ≈ 5.5', loose	0.1
	1018878	100		As above, wet	0.4
-8	1018879	100		18": As above; 5": Olive grey, varved CLAY, trace Silt, wet, stiff	0.2
	1018880	100		As above	0.0
-12				Bottom of boring at 12.0'	
-16					
-20					
-24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-91



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/8/96 <b>End Date</b> 10/8/96	<b>Boring ID</b> NK-SB-92
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018881	100		Dark brown, fine SAND and SILT, moist, loose, root fragments	0.0
	1018882	100		Strong brown, fine SAND, little Silt, trace medium Sand, moist, loose	0.2
4	1018883	100		Olive brown, fine SAND, with Silt, wet at ≈ 5.5-6.0', loose	1.4
	1018884	100		Grey, medium SAND, with fine Sand, little coarse Sand, trace Silt, wet, loose	20.0
8	1018885	100		Olive brown, medium to coarse SAND, some fine Sand, trace Silt, wet, loose	0.5
	1018886	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.2
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-92



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/9/96 <b>End Date:</b> 10/9/96	<b>Boring ID:</b> <b>NK-SB-93</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1018889	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose	0.0
	1018890	100		4": As above; 19": Light brown, fine to medium SAND, some Silt, trace(-) coarse Sand, moist, loose	0.0
4	1018891 1018892	100		As above; Note: trace Dark brown, silty material, wet, soft, cleaner odor	1.4
	1018893	100		Grey, medium SAND, some fine Sand, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, wet, loose, hydrocarbon odor	80.0
8	1019176	50		Olive brown, medium SAND, some fine Sand, trace(+) coarse Sand, trace(-) Silt, wet, loose	1.2
	1019177	100		Olive grey, varved CLAY, trace Silt, wet, stiff	0.8
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.  
 Free product encountered in H2O sample from NK-SB-93.

Printed On: 1/25/1998  
Boring No: NK-SB-93



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/9/96 <b>End Date</b> 10/9/96	<b>Boring ID</b>  <b>NK-SB-94</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:      At:      Hours		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019178	100		Dark brown, fine SAND and SILT, trace medium Sand, moist, loose, root fragments	24.0
	1019179	100		5": As above; 18": Light brown, fine SAND, little medium Sand, trace Silt, moist, loose	38.0
4	1019180	100		6": As above; 17": Grey, fine to medium SAND, little coarse Sand, trace(+) Silt, trace(-) fine Gravel, moist, loose	280.0
	1019181	100		As above, wet	1000+
8	1019182	100		6": As above; 17": Olive grey, varved CLAY, trace Silt, wet, stiff	34.0
	1019183	100		As above	6.4
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998  
Boring NK-SB-94



**LOUREIRO ENGINEERING ASSOCIATES, PC**

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**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/9/96 <b>End Date</b> 10/9/96	<b>Boring ID</b> <b>NK-SB-95</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{1}{2}$ <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019184	100		Dark brown/black, fine SAND and SILT, trace(-) medium Sand, moist, loose, root fragments	0.0
	1019185	100		6": As above; 17": Light brown, fine SAND, some Silt, trace medium Sand, moist, loose	0.1
4	1019186	100		As above	9.0
	1019187	100		Dark grey, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	150.0
8	1019188	100		4": As above; 19": Olive brown, fine to medium SAND, some coarse Sand, little Silt, trace fine Gravel, wet, loose	12.0
	1019189	100		15": As above; 8": Olive grey, varved CLAY, trace Silt, wet, stiff	1.2
12				Bottom of boring at 12.0'	
16					
20					
24					

Printed On: 1/23/1998  
Boring No: NK-SB-95

**Comments:** Borehole backfilled with bentonite chips upon completion.



**GEOLOGIC BORING LOG**

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/10/96 <b>End Date</b> 10/10/96	<b>Boring ID</b> NK-SB-96
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>		<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019192	100		Dark brown, fine SAND, some Silt, moist, loose, root fragments	0.0
	1019193	100		4": As above; 19"; Light brown, fine SAND, little Silt, trace(-) medium Sand, moist, loose	10.0
4	1019194	100		As above; dark brown soft clumps, strong sweet odor (organic lense at 4.5')	15.0
	1019195 1019196	100		Grey, fine to medium SAND, some coarse Sand, trace Silt, wet, loose, approximately 5-7 inches of (shiny) product beginning at 7.0', strong hydrocarbon odor	1000+
8				Bottom of boring at 8.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-96



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/10/96 <b>End Date:</b> 10/10/96	<b>Boring ID:</b> <b>NK-SB-97</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019197	100		Dark brown/black, fine SAND and SILT, moist, slightly stiff, root fragments	7.0
2	1019198	100		8": As above; 15": Light brown, fine SAND, trace Silt, moist, loose	25.0
4	1019199	100		15": As above, (organic lense at 4.5'), sweet odor; 8": Grey, fine to medium SAND, some coarse Sand, trace Silt, wet, loose, hydrocarbon odor	20.0
6	1019200	100		2": As above, hydrocarbon odor; 8": Grey, coarse SAND and fine GRAVEL, little fine to medium Sand, wet, very loose, strong hydrocarbon odor; 13": Grey, fine SAND, trace Silt, wet, loose, strong hydrocarbon odor	50.0
8				Bottom of boring at 8.0'	
10					
12					
14					
16					
18					
20					
22					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-97



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT			<b>Start Date:</b> 10/10/96 <b>End Date:</b> 10/10/96		<b>Boring ID:</b> <b>NK-SB-98</b>	
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>			<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>			
Elevation/ Depth	Sample Information			Sample Description		
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	(ppm)	
0	1019201	100		Dark brown/black, fine SAND and SILT, moist, slightly stiff, root fragments	5.0	
	1019202	100		8": As above; 15": Light brown, fine SAND, trace Silt, moist, loose	35.0	
4	1019203	100		14": As above; 9": Grey, fine to medium SAND, some coarse Sand, trace Silt, wet, loose, hydrocarbon odor	45.0	
	1019204	100		5": As above, hydrocarbon odor; 8": Grey, coarse SAND and fine GRAVEL, little fine to medium Sand, wet, loose (shiny) free product; 10": Grey, fine SAND, little medium Sand, trace Silt, wet, loose, hydrocarbon odor	1000+	
8				Bottom of boring at 8.0'		
12						
16						
20						
24						
<b>Comments:</b> Borehole backfilled with bentonite chips upon completion.						

Printed On: 1/25/1998

Boring ID: NK-SB-98



**LOUREIRO ENGINEERING ASSOCIATES, PC**

100 Northwest Drive, Plainville, Connecticut, 06062, Phone(203)747-6181 FAX (203)747-8822

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/10/96 <b>End Date</b> 10/10/96	<b>Boring ID</b> <b>NK-SB-99</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NM      At:      Hours Depth:            At:      Hours	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019205	100		Dark brown/black, fine SAND and SILT, moist, slightly stiff, root fragments	0.0
4	1019206	100		8": As above; 15": Light brown, fine SAND, trace Silt, moist, loose	5.0
4	1019207	100		15": As above; 8": Grey, fine to medium SAND, some coarse Sand, trace Silt, wet, loose, hydrocarbon odor	10.0
8	1019288	100		6": As above, hydrocarbon odor; 8": Grey, coarse SAND and fine GRAVEL, little fine to medium Sand, wet, loose, (shiny) free product; 9": Grey, fine SAND, little medium Sand, trace Silt, wet, loose, hydrocarbon odor	30.0
8				Bottom of boring at 8.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/26/1998

Boring No: NK-SB-99



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-401 Area <b>LEA Comm No:</b> 68VC614 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/14/96 <b>End Date</b> 10/14/96	<b>Boring ID</b>  <b>NK-SB-200</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019372	100		Dark brown, fine SAND, some Silt, moist, slightly stiff, root fragments	0.0
	1019373	100		Brown, fine SAND, with medium Sand, some coarse Sand, moist, loose	0.1
4	1019374 1019375	100		As above, wet at ≈ 5.5'	0.6
	1019376	100		As above	0.2
8	1019377	25		Olive grey, varved CLAY, little Silt, wet, slightly stiff	0.1
	1019378	100		As above	0.0
12				Bottom of boring at 12.0'	
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-200



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/14/96 <b>End Date</b> 10/14/96	<b>Boring ID</b>  <b>NK-SB-201</b>
<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\frac{\nabla}{\equiv}$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>	

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019268	100		8": Dark brown, fine SAND and SILT, moist, slightly stiff, root fragments; 16": Strong brown, fine to medium SAND, moist, loose	0.0
	1019269	100		As above	0.0
4	1019270	100		As above, very moist	0.2
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/25/1998  
Boring No: NK-SB-201

# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 10/14/96 <b>End Date</b> 10/14/96	<b>Boring ID</b>  <b>NK-SB-202</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> Depth: NM      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019271	100		8": Dark brown, fine SAND and SILT, moist, slightly stiff, root fragments	0.0
2	1019272	100		As above	0.7
4	1019273	100		As above, very moist	0.3
6.0				Bottom of boring at 6.0'	
8					
10					
12					
14					
16					
18					
20					
22					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-202



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> Explosives Storage Area Add. Invest. <b>LEA Comm No:</b> 68VC616 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 10/15/96 <b>End Date:</b> 10/15/96	<b>Boring ID:</b> <b>NK-SB-203</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro core/Large bore <b>Groundwater Observations:</b> <b>Depth:</b> NM <b>At:</b> <b>Hours</b> $\nabla$ <b>Depth:</b> <b>At:</b> <b>Hours</b> $\nabla$	<b>Logged By:</b> L. Bianchi <b>Drilling Foreman:</b> J. Sweeton <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019276	100		6": Dark brown, fine SAND, little Silt, trace medium Sand, moist, slightly stiff, root fragments; 18": Strong brown, fine to medium SAND, moist, loose	0.0
+1	1019277	100		As above	48.0
+4	1019278	100		As above, very moist	0.2
+6				Bottom of boring at 6.0'	
+8					
+12					
+16					
+20					
+24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring No: NK-SB-203



# GEOLOGIC BORING LOG

DRAFT

**Project:** Explosives Storage Area Add. Invest.  
**LEA Comm No:** 68VC616  
**Client:** Pratt & Whitney  
**Location:** East Hartford, CT

**Start Date**  
10/15/96  
**End Date**  
10/15/96

**Boring ID**  
NK-SB-204

**Drilling Contractor:** LEA  
**Drilling Method:** Geoprobe  
**Sampling Method:** Macro core/Large bore  
**Groundwater Observations:**  
**Depth:** NM      **At:**      **Hours**   
**Depth:**      **At:**      **Hours**

**Logged By:** L. Bianchi  
**Drilling Foreman:** J. Sweeton  
**Drill Rig:** Geoprobe 5400  
**Surface Elevation:**  
**Northing:**  
**Easting:**

Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1019279	100		4": Processed stone; 4": Dark brown, fine SAND, little Silt, trace medium Sand, moist, slightly stiff, root fragments; 16": Strong brown, fine to medium SAND, moist, loose	0.1
	1019280 1019281	100		As above	0.3
4	1019282	100		As above, very moist	2.0
8				Bottom of boring at 6.0'	
12					
16					
20					
24					

**Comments:** Borehole backfilled with bentonite chips upon completion.

Printed On: 1/23/1998

Boring NK-SB-204



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7062 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date:</b> 05/20/97 <b>End Date:</b> 05/20/97	<b>Boring ID</b> <b>NK-SB-297</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours <b>Depth:</b> At: Hours	<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634096	70		Black, fine SAND, some organic black and brown pieces, medium to coarse, moist to dry, dense	1.5
1.5	1634097	70		Very fine SAND, yellowish-brown, some Silt, moist to wet, loose	1.5
4				Bottom of Boring 4'	
8					
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 2/16/1998

Boring No: NK-SB-297



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-194 Add. Inv. Former AST <b>LEA Comm No:</b> 68V7062 <b>Client:</b> Pratt & Whitney <b>Location:</b> East Hartford, CT	<b>Start Date</b> 05/20/97 <b>End Date</b> 05/20/97	<b>Boring ID</b>  <b>NK-SB-298</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> At: Hours $\frac{\nabla}{\equiv}$ At: Hours $\frac{\nabla}{\equiv}$	<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	(ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Primary Grain Size, Secondary Grain Sizes, Moisture, Sorting, Sphericity, Angularity, Sedimentary Structures, Density, Cohesiveness	
0	1634098	65		Black, fine SAND, very fine Sand, brownish with organic black particles, little brownish Silt, very fine Sand, Silty, moist to wet	1.0
	1634099	65			1.0
4				Bottom of Boring 4'	
8					
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 2/16/1998

Boring NK-SB-298



# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Add. Inv. Frmr Oil Rack <b>LEA Comm No:</b> 68V7063 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford	<b>Start Date:</b> 05/21/97 <b>End Date:</b> 05/21/97	<b>Boring ID</b> <b>NK-SB-299</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> <b>Depth:</b> NR <b>At:</b> <b>Hours</b> <b>Depth:</b> <b>At:</b> <b>Hours</b>	<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	PID/FID (ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Prim. Grain Size, Sec. Grain Sizes, Moist, Sort, Spher, Angul, Sed Struct, Density, Cohesive	
0	1634058	75		Top 3-4": Bituminous concrete; Medium to fine SAND, yellowish brown, moist, dense	0
	1634059 1634060			Fine SAND, moist, dense to very dense (around 4'), reddish brown, lenses of organics, medium Sand	0
4	1634061	75		Fine SAND, very moist to wet, lenses of medium Sand ???, drk brown, with some reddish dense	0
	1634062			Fine to very fine SAND, some Silt, moist, very dense, brown from reddish (6') to yellowish (8')	0
8	1639063	100		Fine SAND, brown yellowish, wet, dense, some Silt, a little particles of ??? crystal, some grey, Clay around 9.8'	0
12				Bottom of Boring at 10', Moist Grey, CLAY	
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 11/14/1997

Boring No: NK-SB-299



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# GEOLOGIC BORING LOG

DRAFT

<b>Project:</b> X-410 Add. Inv. Frmr Oil Rack <b>LEA Comm No:</b> 68V7063 <b>Client:</b> Pratt & Whitney East Hartford-JBK <b>Location:</b> P&W East Hartford	<b>Start Date</b> 05/21/97 <b>End Date</b> 05/21/97	<b>Boring ID</b>  <b>NK-SB-300</b>
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<b>Drilling Contractor:</b> LEA <b>Drilling Method:</b> Geoprobe <b>Sampling Method:</b> Macro Core <b>Groundwater Observations:</b> Depth: NR      At:                      Hours $\nabla$ Depth:            At:                      Hours $\nabla$	<b>Logged By:</b> I. Rozovsky <b>Drilling Foreman:</b> D. Brisson <b>Drill Rig:</b> Geoprobe 5400 <b>Surface Elevation:</b> <b>Northing:</b> <b>Easting:</b>
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Elevation/ Depth	Sample Information			Sample Description	PID/FID (ppm)
	Sample No.	Recovery (%)	Blows /6"	Color, Prim. Grain Size, Sec. Grain Sizes, Moist, Sort, Spher, Angul, Sed Struct, Density, Cohesive	
0	1634064	75		Fine to very fine SAND, yellowish brown, dry to moist, dense, some organic particles	0
	1634065			Fine, mostly very fine SAND, reddish brown, moist, very dense, small lenses of medium ???	0
4	1634066	75		Fine SAND, some medium Sand, wet, dense, brown greyish, some black, organic particles	0
	1634067			Fine SAND, some medium Sand, some iron staining on ??? moist, dense, some coarse Sand, silty lenses around 8'	0
8	1634068	75		Dark brown, fine SAND, extensive Silt involvement, moist, very dense, hit the Clay later at 10' (in tip)	0
				Bottom of Boring at 10' Grey CLAY	
12					
16					
20					
24					

**Comments:** Boring backfilled with bentonite

Printed On: 11/14/1997

Boring NK-SB-300

